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Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

LOCK HOSPITAL.

CASES OF SYPHILIS TREATED BY CALOMEL FUMIGATION.

Under the care of H. LEE, Esq.

In a recent number, we gave some particulars of thirty cases of syphilis treated by calomel fumigation in the Lock Hospital, and we promised to return to the same subject, and to give a more detailed account of some of the cases thus treated. As we before mentioned, the plan of treatment consists in volatilising 10 or 15 grains of calomel in such a manner that it may be deposited in the most minute state of subdivision upon the skin; care is then taken that the calomel is not wiped off the surface of the body. The patient is generally wrapped in the same blanket which covers him during the process of fumigation, and in the course of five or ten minutes he becomes sufficiently dry. He may then either remove the blanket, or remain with it on during the night, as may be convenient. The process of fumigation occupies usually fifteen minutes; and, as we showed in the table of cases published in a former number, the action produced becomes manifested by a tumid state of the gums, generally within the first week of the treatment. This indication of the action of mercury upon the system is not, however, deemed essential to the remedial effects of this plan of treatment, since the symptoms sometimes disappear with equal rapidity where no visible effect on the gums has been produced.

The treatment of syphilitic disease by calomel fumigation is said, by the author of this mode of treatment, to possess many advantages.

1. The remedy is applied directly to the part most frequently affected by the disease. Although a disease of the blood, yet it cannot be doubted that in the great majority of cases the skin and the mucous membrane are the only tissues upon which its effects are shown; and to these the calomel fumigation is directly applied. It appears quite in accordance with all reasoning upon the subject, that if a remedy is to influence a disease, it would do so more effectually when directly applied, than when it has to go the round of the circulation before it can come to the affected part.

2. Calomel fumigation leaves the digestive organs unimpaired; and consequently it is not only compatible with the proper nutrition of the body during the period of treatment, but, according to Mr. Lee, is unattended with any subsequent debilitating effects upon these parts. This point appears to be established by the fact of the patient's generally improving in weight during treatment.

3. The imbibition of calomel through the skin scarcely ever produces diarrhœa or troublesome salivation. The skin is naturally adapted for receiving external impressions. It is plentifully supplied with blood-vessels, and has great powers of reparation.

All these reasons may contribute to the little injurious effects produced by the calomel fumigation. The increased action of the skin, produced by the heat and moisture of the bath, may also have a powerful influence in preventing the influence of the remedy from being particularly determined to any internal part. There are other advantages attributed to this mode of treatment, but the only one which we have space to mention now particularly is its applicability to cases where mercury in other forms has long been discarded: we allude particularly to cases of tertiary syphilis, including forms of rupia and ulceration of the skin and mucous membrane.

For the particulars of the following cases we are indebted to Mr. Hocking, resident house-surgeon at the Lock Hospital.

CASE I. Ann F., aged 34, married, was admitted into the Lock Hospital, on February 25th, 1858. At that time she presented a few tertiary spots of syphilitic eruption on the nose, and had a very large ulcer on the right leg, supposed to be of the same character. Four years previous to her admission, she contracted the primary sore; this was accompanied by slight swelling in both groins, and followed in six months by copper-coloured spots. The spots subsided about twelve months after the occurrence of the primary disease, and then the ulcer of the leg made its appearance, and has continued ever since. Upon the first appearance of the disease she took mercury, but had latterly been treated by bark and acid.

February 25th. She was directed to fumigate with ten grains of calomel every night.

March 4th. Her mouth was slightly affected, and the sore on the leg had considerably improved.

March 16th. The sore was much diminished in size.

March 20th. The mouth was fully affected. The fumigation was continued until April 6th, and she was discharged on the 8th, the sore being completely healed, and all trace of eruption having disappeared. The only medicine given internally was some opium at night.

CASE II. Frederick C., aged 27, was admitted on February 11th, into the Lock Hospital, under the care of Mr. Lee. The history he gave was, that about eight months ago he had contracted a chancre, with extreme indurated edges and base. There was very little discharge from it; there was no swelling in either groin. Two months after the appearance of the chancre, two ulcers appeared in the throat, and were followed soon afterwards by a secondary eruption, which rapidly spread, and soon assumed a tertiary character. When admitted, he was suffering from ulcerated rupia, which was situated chiefly on the head, face, and trunk; this was accompanied with great debility; so that he was unable to walk, and was obliged to keep his bed. His general health was bad, and he was greatly emaciated.

When admitted, Mr. Lee ordered him to be fumigated, considering his great debility, with only five grains of calomel; and this was to be continued every night; at the same time he was ordered a pint of decoction of sarsaparilla during the day, and ten grains of Dover's powder every night.

The fumigations commenced on February 11th, and were continued every night (Sundays excepted) until March 3rd, when they were discontinued on account of the system being well under the influence of mercury. He was still very weak, and unable to leave his bed; and ten grains of compound iron pill were given him twice a day. As the first effects of mercurialisation passed off, his strength gradually returned, and he was able to walk into the room and be present when the other patients were fumigated. This he did every evening. The large open sores of rupia now rapidly closed up. His appetite returned. He increased in weight; and his general health rapidly improved. Fifteen grains of iodide of potassium was added to his sarsaparilla. He left the hospital on April 15th. The spots of rupia had quite disappeared, nothing but a slight stain remaining; and he appeared as "quite another man".

CASE III. There is another case of considerable interest in the hospital, where, from extreme debility and evident tubercular disease of the lungs, no attempt has been made to check the syphilitic disease. This patient is now about to be subjected to calomel fumigation, and it will be interesting to observe whether the remedy will be successful, as far as the venereal disease is concerned, in spite of the extreme debility produced by the disease of the lungs.

Local calomel fumigation has recently been employed by Mr. Lee in cases of obstinate sloughing depending upon syphilitic disease of long standing. The following is an example:

Case iv. T. S., aged 24, was admitted into the Lock Hospital, February 25, having previously suffered from constitutional syphilis of old date. Three sloughing ulcers presented themselves in the left groin, having destroyed a considerable quantity of skin and cellular tissue. These were treated by tonics and stimulating applications. They, however, continued to spread until the 11th of March, when he was ordered local calomel fumigation to the part; a drachm of calomel was sublimed every day, and as much as might was allowed to fall upon the sloughing sores, the rest of the body being protected from its influence.

The local fumigation was continued a week. The character of the sores was completely altered; they healed very rapidly, and he left the hospital, apparently cured, on April 15th.

KING'S COLLEGE HOSPITAL.

I. HEMIPLEGIA WITH SUGAR IN THE URINE, THE RESULT OF A BLOW ON THE HEAD.

Under the care of R. B. Todd, M.D., F.R.S.

[*From Notes by* Mr. Saxson, *Clinical Clerk.*]

Eliza P. was admitted into the surgical wards on February 2nd. The night previous, she lost her footing in the dark, and fell down a flight of eleven stairs, her head striking against each stair as she fell. When admitted, she was completely insensible. Contusions were seen about the scalp, over the occipital region; but no fracture was discovered. There was found to be hemiplegia of the right side; the muscles of this side were very rigid, and reflex action was greatly exalted. On the following day, the patient seemed able to understand what was said to her, and protruded her tongue when required. The urine was passed involuntarily; the bowels, being confined, were relieved by an enema. On the sixth day after the accident, she seemed more sensible, but did not recover the power of speech until the eighth day.

She was admitted into the medical wards on February 22nd. She was of tolerably healthy appearance, understood all that was addressed to her, but hesitated in her answers. The paralysis of motion on the right side was complete, and sensation was imperfect. The muscles were very rigid, except those of the calf, which were quite flaccid. She complained of pain over the occipital region, not confined to one side of the head. She was ordered three grains of iodide of potassium in an ounce and a half of water thrice daily, and a scruple of mercurial ointment to be rubbed three times a day over the occipital region. The urine, on being heated with sulphate of copper and liquor potassæ, gave unmistakable evidence of the presence of sugar; its quantity was sixty-eight ounces per twenty-four hours. It contained no albumen; its specific gravity varied from 1010 to 1021. Sensation quickly returned, but the paralysis of motion remained: rigidity continued generally undiminished, but it varied frequently from day to day in degree. She complained of pain in the affected side now and then. The urine continued to give evidence of the presence of sugar, though in very small amount. The muscles of the right side became atrophic; no power of motion returned, but sensation even became rather exalted.

II. CHLOROFORM AS A NARCOTIC.

At this Hospital, chloroform has lately been much employed to procure sleep in those cases where opium is contraindicated or fails to act. It is administered in doses of thirty or forty minims, suspended in a little acacia mixture, or some other mucilaginous fluid: and, given at night, generally succeeds in procuring for the patient two or three hours of tranquil sleep. In this way it has been used very successfully in cases of old bronchitis attended with profuse secretion; and in hemicrania, or other painful nervous affections, where opiates have lost all power of alleviating the patient's misery, the use of chloroform internally, in the doses above mentioned, has been attended with great and immediate relief, which allows the patient to obtain that repose of which he stands so much in need.

III. CASE OF ACUTE TETANUS, AFTER AMPUTATION OF THE GREAT TOE.

Under the care of W. Bowman, Esq., F.R.S.

[*Reported by* W. P. Swain, Esq., *House-Surgeon.*]

George S., aged 7, was admitted into the Hospital under the care of Mr. Bowman on March 20th with an injury to the great toe of the right foot, caused by a large stone falling on it and crushing it. It was thought at first possible to save the toe, and measures were taken accordingly; but on the 29th the toe was found to be gangrenous, and Mr. Bowman therefore removed it at the metatarso-phalangeal articulation at ten o'clock A.M. During the day the patient suffered much pain, which was somewhat allayed by the administration of anodynes. The child's countenance was anxious, and he continued very restless. At 12 o'clock P.M. the child complained of stiffness about the neck and jaw. A purgative of calomel and jalap was immediately administered; and on the next morning, the bowels not having been opened, half a drop of croton oil was given.

At this time (8 o'clock A.M.) the rigidity of the muscles of the neck had much increased, and the mouth could only be opened about half an inch. At 10 o'clock A.M. the mouth was perfectly closed, and the *facies tetanica* was most strikingly developed, the corners of the mouth being drawn down, the brow slightly corrugated, and the muscles of the face generally being thrown into action, which produced the peculiar appearance of constant grinning, so characteristic of tetanus. At this time he became frequently convulsed, all the muscles, but especially those of the trunk, being involved. A hasty movement or a current of air playing on the body was sufficient to produce a convulsion.

At this period Dr. Todd saw the case, and advised that the patient should be kept constantly, but slightly, under the influence of chloroform. He also ordered two grains of quinine in water every two hours, and a tablespoonful of wine at similar intervals. For the sake of pure air and perfect quiet, the patient was removed to a ward by himself; and at 11 A.M. chloroform was first administered by Mr. Swain. At first it had the effect of decreasing the rigidity of the muscles; but about five minutes after the first inhalation a most violent spasm came on. The body rested entirely upon the back of the head and the heels, and was violently thrown about by the momentary relaxation of the muscles, and the immediate succession of spasm. The veins of the neck became prominent, the face livid, the eyes protruded, the tongue firmly clenched between the teeth, and a frothy saliva issued from the mouth. The intercostal muscles were fixed and hard as a board, and respiration was maintained by hurried snatches during their momentary relaxation. This spasm increased in intensity, so that at last respiration entirely ceased, and the pulse, which up to this time had been tolerably good, ceased entirely. The urine, which had hitherto been retained, was ejected with great force. Immediately on the cessation of the pulse the spasm of the muscles entirely went off, and the child lay breathless, pulseless, and to all intents and purposes dead from asphyxia. Mr. Swain immediately took the body from the bed, placed it on the floor, and commenced performing artificial respiration, according to Dr. Marshall Hall's method. This was continued for about three minutes, the air apparently permeating the lungs freely. At the end of that period a marked alteration took place in the child's countenance. The hue became much less dusky, and the veins less congested. Immediately a voluntary effort at breathing was made, followed at short intervals by several more gasps. The heart's action was restored; but no sooner was it fully re-established, than the spasm returned, and breathing was again arrested. Artificial respiration was persevered in, and in a short time it was satisfactory to observe that the spasm relaxed, respiration continued naturally, and the skin assumed a rosy appearance. The pulse was then 108. During the whole of the day the child was unable to swallow. Mr. Bowman, therefore, ordered beef-tea and quinine injection, with brandy. Up to 7 o'clock P.M. he remained in pretty nearly the same condition, being visited every now and then by slight spasms, which relaxed under chloroform. The pulse was 130; respiration 45; and a very large crepitus existed over the whole of both lungs. At 8 o'clock P.M., during the administration of an enema, a violent spasm came on. The patient again became asphyxiated, and was again restored by artificial respiration. At 10 o'clock a similar spasm occurred, and respiration was again partially restored; but another more violent spasm supervening, both pulse and respiration entirely ceased; and although artificial respiration was persevered in for half an hour, aided by galvanism and friction, no recovery could be obtained. The eyes became glazed, the extremities cold, and it became apparent that all hopes of restoring animation had expired.

CALCUTTA EYE INFIRMARY.

ILLUSTRATIONS OF SOME OF THE CURABLE FORMS OF AMAUROSIS.

By William Martin, Esq., F.R.C.S., late Superintendent of the Infirmary: and Professor of Ophthalmic Surgery in the Calcutta Medical College.

II. AMAUROSIS FROM CACHEXIA.

In the preceding division were put a certain number of cases exemplifying the disease as arising from a state of general debility of the system. We now come to examples of a condition of the retina, producing a nearly similar train of symptoms, but arising from a somewhat different cause; that is, a cachexia, caused not by mere excessive loss of the nutritious fluids of the body, but by some poisonous action exerted by the prevalence of a particular disease or train of diseases.

Case I. Jaddoo, aged 30, was admitted as an in-patient, September 27th, 1856, with amaurosis. The past year he had suffered from syphilis, for which he had been salivated. Two years previously he had enlarged spleen. He had become anasarcous, and had suffered from rheumatism. He saw objects as through a dense fog. There was slight strabismus. He was ordered tonic mixture, and counterirritation.

October 6th. He was improving in both eyes. He afterwards suffered from cough, dyspepsia, etc., and was much benefited by the use of sarsaparilla. He also suffered from dysentery.

November 4th. He was in better health, and the sight had improved, he said, six parts out of sixteen.

November 26th (two months after admission). He had continued to improve, and was discharged relieved.

Remarks. This is a peculiarly interesting case, as there were a number of predisposing causes—syphilis, mercurial action, rheumatism, spleen-disease, anasarca, acute ophthalmia, any one of which might be enough to induce a cachectic state of the body; but which, although acting upon the constitution in conjunction, all or several of them, only produce a temporary or functional amaurosis. The treatment was varied according to the many changes of disease which were exhibited, and much occurred to depress the vital powers; yet after about two months stay in Hospital, he was reported as so much better, that, according to his own account, he was half cured, and the improvement was progressive.

Case II. Toonoo, aged 55, was admitted as an in-patient into the Infirmary, on September 30th, 1856, with amaurosis. He had suffered three years previously from syphilis, for which he was salivated. A year before admission, he had attacks of ague and spleen disease. He was ordered quinine and soda.

October 4th. He said his sight had slightly improved.

October 11th. He continued to improve. The tonics were continued, and counterirritation was applied.

November 5th. He left Hospital relieved. He said he was half cured; and the improvement was progressive.

Remarks. Here was also a combination of causes for a special cachectic state of body, and which only induced a functional amaurosis.

Case III. Horee, aged 16, was admitted as an in-patient on October 22nd, 1856, with amaurosis. Three years previously he was subject to fever and spleen disease. Two years before admission he had catarrhal ophthalmia; and this was followed by nyctalopia. He was ordered local depletion, and counterirritation, followed by tonics.

November 10th. He said his day sight was better; but he could not see better after sunset. He continued to improve somewhat.

December 6th. He was discharged relieved.

Remarks. The causes here were spleen-disease and attacks of acute ophthalmia. These induced a state of functional amaurosis, which was at any rate partly curable; probably it only required time for a perfect cure.

Case IV. Beedee Bodun, aged 39, was admitted as an out-patient of the Infirmary, May 22nd, 1856, with amaurosis, complicated with jaundice. He was in a cachectic state. Ten years before he suffered from syphilis, and was affected by the action of mercury. He also, when admitted, suffered from rheumatism, and was an opium eater. He ceased to attend.

Remarks. I find I have nothing to note as to the progress of the case; but still, from the similarity of its symptoms to those which proved to be only cases of functional disease, I think we may have a strong presumption that this was one of the same kind.

Case V. Luckeenarian, aged 25, was admitted as an out-patient, July 8th, 1856, with amaurosis. He had for the past thirteen years suffered from fever, nyctalopia, muscæ volitantes, etc. The disease was complicated with hemiopia, the sight being in the following peculiar condition, showing a state of chronic irritation of portions of the nervous system of the brain and eye. With both eyes he could only see objects which lay on his right side. With the right eye only, he could see features, etc., indistinctly, but equally well on all sides. With the left eye only, he saw on all sides equally, but could not distinguish features. He could only see objects moving about between his eye and the sun.

Remarks. Here was a peculiar cachectic state of constitution, brought on originally by the fever, which had previously caused various disordered conditions of the internal tunics. There was a state of the system different from mere anæmia or general debility. Unfortunately, I knew nothing of the progress of the case, as the man did not continue his attendance.

Case VI. Ramdoon, aged 35, was admitted as an out-patient, August 28th, 1856, with amaurosis. Four years previously he had syphilis, for which mercurial fumigations were used, and he became salivated. Some time afterwards he had secondary syphilis, which was not severe. He said it disappeared without treatment in fourteen days. Five months after that, the right eye became inflamed, and soon afterwards the left. The action of the pupils, both associated and distinct, was normal. He could not see distant objects; near objects better, but not clearly. He saw best with a small light. He was ordered tonics, and stimulating drops to the eye.

September 3rd (sixth day). His sight was a little clearer.

September 10th. He saw both near and distant objects better.

September 13th. He was improving daily. He now saw near objects with perfect distinctness.

September 16th. He ceased to attend. The inference is that he would in time have been cured.

Remarks. The syphilitic taint of the constitution, as well as the great improvement of vision from the treatment employed, are well marked in this case.

Case VII. Seebchurn, aged 30, was admitted an out-patient on September 1st, 1856, with amaurosis. He had been much subject to fever. Some years previously he suffered from gonorrhœa and buboes. He had also had piles, dyspepsia, and occasional diarrhœa. The impaired state of vision had come on gradually within the last twenty-four days. He was ordered simply tonic mixture.

September 17th. He had more strength.

September 23rd. His sight had improved within the last few days. He was in progress to be cured, but left Hospital.

Remarks. The bad state of the body here seems to have arisen principally from disordered function of nutrition, of which the dyspepsia, hæmorrhoids, etc., were the most prominent symptoms.

Case VIII. Kalleedoss Dey, aged 40, was admitted as an out-patient on December 26th, 1856, with amaurosis, immediately following cephalalgia. He had suffered from rheumatism, and had been twice mercurialised. He was ordered a tonic mixture, containing sarsaparilla, with iodine and iodide of potassium; and five grains of blue pill at night.

January 9th, 1857. He still suffered from pains in the head. Counterirritation was applied, and decoction of bark ordered.

January 19th (twenty-fourth day after admission). He said he was stronger. His sight remained the same. The medicines were continued. He ceased to attend.

Remarks. The cachexia here seems to have been due to the mercurial action, having been produced twice when the powers were enfeebled by rheumatic disease; from the similarity of its symptoms to those of other cases of functional amaurosis, I have not the slightest doubt that it may be put in the same class.

General Remarks. In the group of cases, the outlines of which are here given, the indications of treatment were, gradually to restore the tone of the system; to bring back the functions, particularly of the liver, stomach, and skin, to a healthy state; and to cause the elimination, if possible, of the poisonous influence which had pervaded the system. These indications were not always readily fulfilled; much perseverance was required, and it was found necessary often to change the medicines used: the patient, moreover, often became dissatisfied with the slow progress made, and discontinued attendance. The improvement, however, which resulted in the greater number of cases, although not so nearly amounting to an absolute

cure, as in the preceding group, was sufficiently satisfactory. The medicines which were found of most use were gentian or cheyretta, quinine, preparations of iodine, and occasionally mercurials.

[*To be continued.*]

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Original Communications.

REMARKS ON THE THEORY OF ELIMINATION IN THE TREATMENT OF DISEASE.

By C. Handfield Jones, M.B., F.R.S., Physician to St. Mary's Hospital.

[*Read before the Harveian Society.*]

It has been well said by one of the masters of our profession, that the development of a principle is like setting up a brilliant light in the midst of a large hall, which enables the eye to take in the whole in all its fair proportions; while the investigation of details is like exploring the same hall in all parts by the aid of a taper. The latter process is most necessary; without it there can be no safe ascent to higher ground, no sound induction; but yet it ought always to be conducted, as far as possible, under the guidance of some *informing* (shaping) idea, which may connect and colligate our facts, and enable us at last to arrive at a law or principle. I am much inclined to think, that of late years we have been over-busy in accumulating facts without sufficient reference to principles, or, to use Dr. Whewell's term, colligating ideas. Blood-globules have been counted, tissues have been scrutinised both healthy and morbid, secretions analysed, symptoms described, and râles defined minutely. Far be it from me to decry this painful labour; it has produced fruit, and will, I doubt not, yet more. But have we not, amid all these particulars, thought too little of the general truths which they contain, and which we ought to strive to educe? I believe strongly that each age has its mission, its more particular work to do; and the mission of our age may be the accumulation of facts, that of a succeeding age their interpretation. But still I would we had more workers after the example of an eminent member of this Society, lately passed away from among us, whose observations and experiments always went straight to a point. I need not say I allude to Dr. Marshall Hall.

The topic which I wish to bring before the Society to-night is the consideration of a principle of wide application in therapeutics; viz., how far, in various diseases I shall refer to, we ought to proceed on the view of endeavouring to eliminate or get rid of some *materies morbi* which we suppose to exist. In many disorders we have more or less certainty of the imbibition of a poisonous material; and it would seem a natural inference, that to get rid of this material should be the chief aim of our efforts. It appears to me that this conception, in a more or less distinct form, is extremely prevalent, and that there is some risk of its being carried too far, and prompting an injurious practice. Thus, Dr. Todd bases his treatment of scarlatinal dropsy on the elimination of the poison. Dr. G. Johnson recommends castor-oil in cholera to procure the excretion of the poison by the bowels, and regards Bright's disease as the result of the renal cells striving to remove morbid materials from the blood, and becoming damaged in so doing. Mr. Simon speaks of cancer as an "eliminative effort"; and Mr. Paget appears to take nearly the same view.

These are high authorities; and I fear I shall be considered guilty of heresy in presuming to differ from them. How far I may be justified, it will be for my audience to decide.

Let me ask attention, first, to one or two introductory remarks. When we meet with a case of poisoning from the ingestion of deadly drugs, such as opium, arsenic, corrosive sublimate, or with a case of snake-bite, we do not think much of trying to expel the poison from the blood, and so relieving the sufferer. We know this would be a vain attempt, and so we set ourselves to counterwork the virus, to stay its deadly action by remedies which have an opposite effect. The snake-bitten man imbibes brandy, arsenic, ammonia, etc., plentifully; and if the poison be not too potent, his system is rallied from the fatal prostration, and he recovers. The animal to which prussic acid or woorara has been administered is apparently lifeless, and if left to itself will soon be really so; but we use artificial respiration for a time, and at length the poisonous influence passes by, and the respiratory muscles resume their play. So, also, in a case of opium poisoning, we oppose the tendency to fatal coma by artificial excitement. Here, then, are exemplars for us; we see clearly in these cases what course we must follow. We must aid Nature to get over the difficulty; we must not think to take her work out of her hands; but we must try to sustain her powers where they fail. In one instance, indeed, we can do more, and eliminate the poison by means of drugs. I refer, of course, to the detachment of lead from the tissues of the body, and its excretion in the urine, by the agency of iodide of potassium, as first rendered probable by M. Melsens, and recently confirmed by Drs. Parkes and Sieveking. This, however, is almost, if not quite, a solitary instance.

Another remark I will offer is this; that it seems of more importance to have a sound, vigorous vitality of the tissues, than that the blood should be of absolute purity. If the life of the solids is feeble and languishing, they can do little, even with the best blood. On the other hand, if they are vigorous, they will nourish themselves and function well, although their nutrient fluid be of inferior quality. Not long ago I had a patient who was markedly jaundiced, but who went about his business, ate and drank as usual, and had no sensation of illness. Another patient has long suffered from Bright's disease, with anasarca, and his urine is still highly albuminous; but for the last six months he has enjoyed exceedingly good health, has been free from dropsy, and looks robust and vigorous. In both these cases (and they are no very uncommon ones) the tissues nourished themselves well out of blood which was far from healthy. Again, with regard to miasmata: a weakly man is exposed to the infection of fever; he imbibes it, and after a time droops and sickens. A companion of stronger frame exposed to the same escapes altogether. What has made the difference in these two? Both must have received the poison into their blood as a matter of physical necessity; but the nervous system of the weaker has succumbed, while that of the stronger has resisted the poison. Or an army is retreating over a line of country pursued by a victorious foe. Both are exposed to the same influences; but the one, dismayed and depressed, is visited heavily by disease, while the other, exulting and confident, is comparatively healthy. Again, if two boats' crews go up the same African river, and are alike exposed to the miasma, while the one is protected by a daily modicum of quinine wine, which is denied to the other, it is notorious that the latter will be to a man smitten with fever, and that the former will almost, if not entirely, escape. The quinine, like the mental stimulus, increases the resisting power of the nervous system: so that the poison received into the blood is inoperative. Once more, when pus is injected into the veins of an animal, the effect depends much on the vigour of its system. A feeble animal—as a rabbit—dies surely; a stronger resists and survives.

I hope that what I have said will not be taken to mean that I consider it of no importance whether the blood be contaminated or not. I am as fully satisfied of the mischief which may ensue on blood-poisoning as the greatest humoralist can be. My only aim is to hold the balance even, and to set forth duly the resisting power of healthy tissues.

Passing on to the proper subject of this communication, let us first take for our consideration the *exanthemata*—variola, scarlatina, measles, erysipelas. What shall we regard as the true principle of correct treatment in these, so far as we find that we have any power? It is certain that the morbid phenomena depend on the reception of a poison into the system. Can we hope to neutralise or expel this? As to the possibility of neutralising the virus, medical science, we must confess, is wholly silent. As to expelling it, the opinion seems held by many that the exanthem is an eliminative effort, and therefore it would seem that, even if we prefer another channel to that selected by nature, we ought to pursue the same indication. But is it certain that the exanthem, or any other of the morbid phenomena that occur, are eliminative efforts? May we not just as well regard them as reactions of the tissues against the poison, as so many foci of irritation? Doubtless we must not suppress the cutaneous eruption, because it is better to have the skin inflamed than the bronchial or intestinal mucous surface. But neither do we get any good by increasing the eruption as much as possible. Take the case of *small-pox*; the cutaneous is not the only channel by which exudation of the infecting matter takes place. Dr. Copland states "the miasm of small-pox is given out from all the mucous, cutaneous, and excreting surfaces—the exhalations, the secretions, the excretions, the matters in the vesicles and pustules, and the scabs, all contain this poisonous material." Indeed, there is reason

to believe that the cutaneous elimination is a very imperfect one. For, examine small-pox pustules (as they are called), and it is evident that they are by no means minute abscesses which break and discharge completely. The exudation, or at any rate much of it, as it dries up into a scab, remains in contact with a most highly vascular, papilloid projection of the cutis, which seems eminently fitted to re-absorb the exuded fluid, and to some extent must certainly do so. The elimination from the pulmonary surface is probably far more complete. While, however, variolous matter is thus exuding everywhere, it is worth notice that neither much sweating, nor purging, nor salivation avail materially to procure a diminution of the morbid action. Sydenham especially regards violent sweats as of bad omen, because "they eliminate particles unfit for secretion", and interfere with the due rate of secretion and expulsion. Whether this is the true reason, whether the variolous poison is not quite ready for expulsion (could it be effected), at an earlier period, may well be doubted, seeing that in the practice of inoculation Dr. Gregory recommends the thin lymph of a fifth-day vesicle in preference to the well-concocted matter of the eighth day. It seems to me highly improbable that the variolous poison is ultimately got rid of solely by expelling the whole of it from the body; it rather appears to be gradually destroyed in the blood, broken up by decomposition, and so changed as to lose its noxious properties. Indeed, if it did not cease to be formed in the blood there could be no end to the disease, except with death; and as during the progress of the disorder fresh blood is being made out of food, there would be evermore a generation of fresh poison, unless of itself it underwent destruction.

In *scarlatina* and *measles* we have as much certainty of the system having been affected by a poison, as in the case of variola. But is it not really a stretch of imagination to regard the cutaneous eruptions, the faucial, bronchial, and renal inflammations, as in any wise eliminatory acts? Are they in any wise essentially different from ordinary inflammations of the same parts, and is not our successful treatment of them in the main identical in both cases? One of the most eminent physicians of this metropolis, however, seems to regard all these phenomena as of eliminatory character, and shapes his practice in accordance with this view. So also Dr. Copland, in speaking of scarlatina, both as to its prevention and cure, lays principal stress on "such measures as promote the depurating action of the emunctories on the blood." Now my objection to this view, viz., that the elimination of the poison is the one great aim we are to keep before us, is, that it would mislead us in the most perilous cases. In ordinary ones the treatment it suggests will be appropriate enough, and will coincide with what would be recommended on other grounds, but in the more severe dangerous cases it would manifestly be unsuitable. Thus we should not hope to save a case of malignant scarlet fever by purging out the poison, nor a case of measles with broncho-pneumonic complication of sthenic character by the use of mere diaphoretics. In both kinds of instances we must follow common sense, and the safe old rule "to obviate the tendency to death" in whatever way that manifests itself. If the danger is from sinking and asthenia, then we must uphold; if from violent inflammatory action, we must deplete. Our task is not to get rid of the poison—that Nature will do of herself; but to sustain the system and guide it safely between the opposite perils of excessive irritation and overwhelming depression. The very marked success which has attended the steady use of quinine in Mr. Hood's hands in scarlatina for many years, is scarcely reconcilable with the view of elimination. It is true that he attaches great importance to a daily calomel aperient, but he regards quinine as his sheet anchor.

The last of the exanthemata group, viz., *erysipelas*, assuredly gives but small countenance to the idea of procuring recovery by expelling the poison. All our best experience shews that we must deal with the disease on ordinary principles, viz., if ever (*rara avis* in London at any rate) it be of sthenic character we must employ antiphlogistic means; if, as we almost always meet with it, it be of asthenic character, than we must strive to sustain the sinking powers.

I will here make one remark in passing from this hasty glance at the exanthemata; viz., that there seems much reason to believe that the poisons in them are not separate and distinct substances, which may be thought of as dissolved in the blood, but they are rather states of the blood itself. The whole albuminoid plasma of the blood, and all its exudations, are thrown into a peculiar state by an agency probably rather catalytic than fermentative. As long as this state lasts, all the emanations and effluvia from the body contain infectious matter; when it is over, the virus has ceased. But this, as before stated, is dependent, not on the poison having been all excreted, but rather upon its being all destroyed, or having ceased to be.

Let us now look to *continued fever*, ignoring for the nonce distinctions of typhus and typhoid. Shall we think to see in the rose spots, or measly rash, in the intestinal glandular deposit, or the congestive pneumonia, eliminatory efforts? If so, much more may we consider the great increase which often takes place in the secretion of urinary solids as an evidence of the same, and indication for treatment. But if we look to the answer which the system gives to our therapeutic efforts, we find a decided condemnation and refusal of all formal evacuative treatment—at least in the fevers which prevail among us at the present day; though some thirty years ago, as high authorities testify, a different proceeding, involving even venesection, was not only borne, but required. Now we have often much ado to sustain the powers of life in its struggle against the depressing influence, and we take away blood even by leeching with some reluctance. The only kind of eliminative treatment that can be advised in fever (and this applies equally to variola and scarlatina) is the free access of pure air, which is certainly of very great importance. This doubtless favours pulmonary exhalation; but yet it can scarcely be considered as directly influencing the excretion of the poison, but rather as preventing the retention of other noxious effluvia in the blood. A mode of treatment which I have employed, with apparently good results, in a few cases, is diametrically opposed to elimination. I have given two or three grains of quinine, with six or eight drops of liquor opii sedativus, about four times a-day, administering wine and other support according to need. The intention is not to effect a cure, as Dr. Dundas affirmed he could do, but to prevent local congestions by toning the vasomotor nerves, and to aid in sustaining the nervous system under the depressing influence. Acknowledging myself an adherent to the views of fever so well expounded by Virchow and Dr. Parkes, and which are doubtless well known to the members of this Society, it seems to me a rational proceeding to address remedies of the kind I have mentioned to prop the failing power of those organs, the paralysis of which I believe to be the essential thing in the causation of fever. I am glad to be able to refer to the confirmatory experience of an eminent member of this Society, Dr. Fuller, respecting the benefit of quinine in low fever, as I saw it not long ago reported in one of the weekly journals. But many of our profession, if I mistake not, scarcely hold with this. Dr. Watson speaks of the administration of calomel and opium, or hydrargyrum cum cretâ, every six hours, in the early periods of the fever; and such was the common practice that I witnessed in my student days. Now, that some doses of grey and Dover's powder may not be decidedly useful in subduing a sub-inflammatory condition of the intestinal mucous membrane, I do not at all deny; but I would never give a patient of mine in low fever a particle of mercury on the view of eliminating by the bowels the morbid poison, as a physician of no ordinary attainments and position not long ago affirmed to me he did. The fact that quinine and opium can be given with advantage throughout the course of low fever, is a strong argument of itself that no eliminatory treatment is needful or desirable. Let me not be understood to say that I suppose all fevers would do well under such management as I have just mentioned. I have no doubt that, in other types, a very different procedure would be requisite, as tartar emetic and opium, or even venesection. Everything must depend upon the character of the symptoms, whether they run in the direction of violent inflammatory reaction, or in that of asthenia.

The great family of *malarious* diseases, including fevers, neuralgiæ, dysenteries, etc., are commonly regarded as depending on the reception of a poison into the blood. If this be true, how strong is the lesson they afford us as to the right way of dealing with analogous conditions! We do not attempt to purge out the poison, or evacuate it by skin or kidneys: we simply take no count of it, but brace and tone up the nervous and other systems to resist it. Quinine, arsenic, iron, strychnine, generous diet, good air, cheerful animating occupation,—these are the antidotes to the malarious diseases. Of course, if internal organs are engorged, or torpid in their action, this must be corrected; unhealthy secretions must be improved, otherwise there will be no opportunity for the curative effect of the real remedies. The point, however, for our notice at present is, that these are the very reverse of evacuative.

[*To be continued.*]

ON THE MORTALITY OF INFANTS IN FOUNDLING INSTITUTIONS, AND GENERALLY, AS INFLUENCED BY THE ABSENCE OF BREAST-MILK.

By C. H. F. Routh, M.D., Physician to the Samaritan Free Hospital for Women and Children; late Physician to the St. Pancras Royal Dispensary; etc.

Part III.

[*Concluded from page* 311.]

Cream as a Substitute. I have before said (p. 145) that there are some cases in which no wet nurse can be found to suit a child; and in these cases, moreover, milk in its several forms may be tried, but the efforts to bring up that child upon milk will fail altogether. In many of these cases, it is observed that there is a great quantity of acid produced upon the stomach of the child, and the same effect results when that child takes saccharine matters. It is in such instances that the mixture of one part of cream to three of water proves often very beneficial. I have known a child reduced almost to a state of complete atrophy, gradually recover its good looks and strength on this change of diet. Cream in composition contains pretty nearly the same ingredients as milk, except that the casein is diminished, and the fatty matters considerably increased. In this manner, the absence of sugar is compensated for by the excess of fatty matters; and thus the fluid produced is sufficiently rich both as a nutritive and as a calorifient aliment. The addition of water diminishes the density, and makes the mixture more digestible. If to every half-pint of this half an ounce of lime-water be added, the tendency to the formation of acid is removed, the solubility of the casein and the emulsion of the fatty matters are insured, and both these last become more assimilable.

What has been said will suffice on the use of the various kinds of milk in their natural condition. But here I must take up two other points—1. The correction of inferior milks, so as to adapt them for infant purposes; 2. The preparation from strong and rich milk of a compound resembling human milk.

1. *Correction of Inferior Kinds of Milk.* Here I am especially indebted to Dr. Merei of Manchester for the information he has given me, which I have in this paper in great measure incorporated. If we take a tube nine inches long by half an inch wide, graduated in sixteenth parts of an inch, and put into it about two ounces of milk and the same quantity of water, and expose it to a temperature of 50° to 60° Fahr. for about eighteen or twenty-four hours, the cream will be found to have separated, and will be observed as a whiter, more opaque substance, floating on the surface of the milk. If this stratum above the milk amount to seven or eight of the graduated degrees, that milk is essentially good and rich, and contains about six and a half to seven and a half of butter. Medium milk will contain only five or six degrees; the worst kinds, only three degrees; and the inferior qualities supplied to the poor (skim milk), only two degrees. Here, then, is a ready means of measuring quality.

Now, experience has shown that such poor milk causes more gastric disorders than rich milk: nay more, that, to obviate this result, it requires a greater dilution than rich milk, notwithstanding its poverty. Dr. Merei attributes this to the preponderance of casein, which is one of the chief causes of gastric disorder. This casein, it is observed, is both *harder* and *coarser* in cows' than in human milk. This is, no doubt, one cause; but there is another which, I think, applies, and which is mainly due to the dishonesty of milk-dealers. The cowkeeper has already watered his milk, to separate a certain amount of cream from it. The retail milk-keeper has done the same very frequently. The butter has thus been already taken out. Lactic acid has formed, and what butter remains in the milk is scarcely now contained in perfect combination as an emulsion, but is disintegrated, or, as it were, in imperfect mechanical suspension only. The casein is perhaps in the same state.

Dr. Merei's experience in the method he adopts to improve inferior milks seems to point also to this view of the case.

In case of feeble children, with bowels previously deranged, he recommends that, instead of diluting the milk with water, we should add a decoction of arrowroot, made with one teaspoonful of this substance to three-quarters of a pint of water, this quantity to serve for the admixture of the whole day's supply. In more severe cases, the arrowroot may be increased to two teaspoonfuls. This arrowroot is not given as an aliment, but as a softish substance to soothe by its mechanical pressure the irritation of the intestinal mucous membrane. Langenbeck, indeed, believes that, in such cases, the granules of starch intersperse themselves between the particles of casein, and thus in great measure prevent the formation of hard indigestible curds. The mixture Dr. Merei gives consists of three or four pints of this thin decoction of arrowroot to one part of new milk slightly boiled, and in the twenty-four hours amount of food thus prepared he adds about one to two tablespoonfuls of *cream*. Children will digest well from a pint to a pint and a half of this mixture in twenty-four hours, according to age. As they grow older, he increases the proportion of milk, but not of the cream. If an infant be tolerably strong and regular in his bowels, and has to be bottle-fed, under four months of age, a mixture of first rate quality of milk simply with water, in equal proportions, or, after three to four months, one part of water to two of milk, agrees well, if given at a temperature of 90°. For children liable to diarrhœa, a very thin and weak infusion of aniseed tea, instead of water, may be substituted. Where the gripings and diarrhœa are severe, it is well to combine a teaspoonful, three or four times a day, of dill or peppermint water and water in equal parts, with lime water and a trace of opium to allay the irritation. (Extract of private letter.)

The above has been very generally the plan upon which I have acted in these cases, with two exceptions. The ease now-a-days of giving cod-liver oil to infants, and its cheapness as compared with cream, have led me usually to prefer the former, which doubtless acts in the same way as cream in supplying an oily but highly assimilable combustive aliment. Also, I have usually combined sugar, because existing in cows' milk in smaller quantity than in human milk.

2. *Preparation from Rich or Strong Milk of a Compound resembling Human Milk.* My attention has been called to this especially by Mr. Harry W. Lobb, a gentleman who for some time past has closely studied the subject. In page 133 in his little work on *Hygiene*, he gives us the following method of preparing Professor Falkland's milk for infants. I subjoin it here in full.

One-third of a pint of new milk is allowed to stand until the cream has settled; the latter is removed, and to the blue milk thus obtained about a square inch of rennet is to be added, and the milk vessel placed in warm water. In about five minutes, the curd will have separated; and the rennet, which may again be repeatedly used, being removed, the whey is carefully poured off, and immediately heated to boiling, to prevent its becoming sour. A further quantity of curd separates, and must be removed by straining through calico. In one-quarter of a pint of this hot whey is to be dissolved three-eighths of an ounce of milk sugar; and this solution, along with the cream removed from the one-third of a pint of milk, must be added to half a pint of new milk. This will constitute the food for an infant of from five to eight months old for twelve hours; or, more correctly speaking, it will be one-half of the quantity required for twenty-four hours. It is absolutely necessary that a fresh quantity should be prepared every twelve hours; and it is scarcely necessary to add, that the strictest cleanliness in all the vessels used is indispensable.

The above is a very ingenious process, but it is open to objection in one or two particulars.

a. Messrs. Parmentier and Deyeux have shown that there is a disadvantage in boiling milk. When eight pounds of milk obtained from cows fed on grass, cabbage, potatoes, and maize, respectively, were distilled, eight ounces of a colourless fluid were obtained. That from those fed on grass was aromatic; on cabbage, offensive; on maize and potatoes, quite inodorous. Hence they infer that, if this volatile principle constitutes in any way one of milk's constituent parts, it must be wrong to deprive milk of it, or to expose it to those circumstances which favour its separation. Experience with infants has also shown me, that boiled milk is seldom so well borne as milk simply warmed by the addition of hot water.

b. The objection has been made by Mr. Lobb, that in Dr. Falkland's process scarcely enough casein is removed. That gentleman has another method of preparing this artificial human milk, which he calls *mincasea*, which I here subjoin.

"Half a pint of new milk is set aside for the cream to separate, which latter is removed; and to the blue milk half a teaspoonful of prepared rennet is added; this is placed over the fire, and heated until the curd has separated, when it is broken up with a spoon, and the whey poured off. In winter, three drachms of powdered sugar of milk is added to this warm whey; and the whole is mixed with half a pint of new milk. In sum-

mer three drachms and a half of sugar of milk are added, and with the new milk are all boiled together."

There is another formula given by Mr. Turner, a homœopathic chemist, of Manchester. Although I disbelieve the dogma of homœopathy, I am not above taking a lesson from an adversary. His formula is very simple. "Dissolve one ounce of sugar of milk in three-quarters of a pint of boiling water, and mix with an equal quantity of good fresh cows' milk." This process is simpler than Professor Falkland's and Mr. Lobb's, and, as such, I prefer it, and would fain recommend it, except that I should prefer water of a temperature of 160° Fahr. to the boiling water. The most ignorant nurse might prepare it easily in any part of the country where good milk can be procured.

The disadvantage which applies to this process in towns, as I before stated, is the difficulty which attends the procuring of good milk. The same objection applies to many other places, as on board a ship. Something like a substitute may be found, however, in the employment of desiccated milks, to which if water in proper proportions is added, a milk presenting all the peculiarities of good rich milk is produced. Two of these kinds are known in London—Moore's Patent Concentrated Milk, and Grimsdale's Patent Desiccated Milk. In a communication received from Mr. Moore, through a late friend, that gentleman stated that his milk could be manufactured at 1*s.* 4*d.* per lb., which would be equal to one gallon of pure milk. The milk is, I understand, merely evaporated at a temperature under the boiling point. It appears to possess many advantages.

The other preparation, Grimsdale's Desiccated Milk, is not in the form of extract, but rather of powder, of the same bluish white colour as milk. This has rather a gritty feel to the finger, and, when put on the tongue, a strong milky taste; and it mixes readily with boiling water. It is then acid or alkaline. From calculation, one ounce of the powder requires 6·4 oz. of boiling water to make it of the same strength as milk. I have no experience of its uses or advantages. The objection to it seems to be, that it needs boiling water for its solution; nor am I aware if it is in its preparation evaporated to the consistence of an extract by heat, above or under 212° Fahr.

Other Substitutes for Milk. Eggs. It would appear natural, from the lessons comparative anatomy and chemistry give us, that where milk could not be procured, *eggs* would afford us a good substitute. Indeed, the egg presents several points of analogy to milk. It is true, we have albumen in the place of casein; but these two substances, for all practical purposes, may be considered as similar. The white of the egg is albumen in a very pure state, with about 22 per cent. of water, and 0·65 per cent. of salts. The yolk, with 52 per cent. of water and 1·52 per cent. of salts, contains as its albuminous compound a substance called *vitelline*, very like albumen in composition, but coloured by an oil containing phosphoric acid, and in its ultimate composition being a little richer in hydrogen and oxygen. Moreover, Barreswill has determined the presence of sugar in the white of egg. It has an alkaline reaction, which is due to the presence of carbonate of soda. The yolk, on the contrary, contains little or no alkali, and its emulsive character is to be ascribed to the presence of a substance very like pancreatic juice. The proportion of white of egg to yolk may be stated as 60·6 to 39·4, and 58·4 to 41·6.

The composition of the white and yolk of egg has been tabulated as follows:—

Composition of Egg (Gobley).

		Yolk.
Water		51.5
Vitelline		15.7
Margarine and Oleine		21.3
Cholesterine		0.4
Phosphorous body	7.2	
Oleic acid	1.2	8.4
Phosphoglyceric acid		
Cerebric substance		0.3
Salts		2.3
		White.
Water		77.15
Albumen		22.2
Salts		0.65

The salts raised to 100 parts contain according to Polack—

	Yolk.	White.
Chloride of potassium	—	42.17
Chloride of sodium	—	14.07
Potass	6.57	16.09
Soda	8.05	1.15
Lime	13.28	2.79
Magnesia	2.11	3.17
Sesquioxide of iron	1.19	.55
Phosphoric acid	66.70	5.79
Carbonic acid	—	11.52
Sulphuric acid	—	1.32
Silica	1.4	2.04

It will at once be seen that, in the large quantity of phosphoric acid, and of chloride of potassium only to a larger extent, egg resembles milk and flesh, and, as such, must possess similar properties in nourishing a child.

I have already alluded to some of the uses of phosphoric acid. The excess of potash salts, of chloride of potassium especially, which, as in muscular flesh and milk, so greatly exceeds in quantity the chloride of sodium, is very remarkable. My friend Dr. Andrew Clark has also informed me that potash salts are always in excess in cell-developments, even when the growths are morbid—a fact of great importance, although often overlooked, as showing that those animal foods which contain an excess of potash salts should be preferred as aliments for growing children.

The white of egg, however, if given, should be given as nearly as possible raw, or, if warm, only heated to 130° Fahr. Beyond this temperature, it coagulates, and then becomes much more difficult of digestion. If the egg be put in boiling water for two minutes only, except a thin external layer of albumen which will have been coagulated, it will be warmed successfully. Cows' milk contains, however, 5·5 of casein, and white of egg 7·7, or with the yolk 4·6. It should, therefore, be diluted; and, with a little sugar of milk added, it would form a very fair substitute for milk.

Bone Soups and Jellies have been recommended as aliments for children. The opinion at present almost universally entertained is, that gelatine, the chief ingredient in such soups, etc., although a nitrogenous substance, is, like hair, innutritious. It is unassimilable in children, as well as in older persons; and it only overloads the blood with nitrogenous products, which render this fluid impure and unfit for the purposes for which it is required. Still, as a medium for the exhibition of wine, or as an emulcent in cases of irritation of the bowels, or for the exhibition of particular remedies, jellies may be useful occasionally, just as we spoke of arrowroot in cases of intestinal irritation.

The last animal preparations to which I shall allude, as substitutes for milk, are beef-teas; and, of these, I shall speak of two kinds only—Liebig's Beef-Tea, and Hogarth's Essence of Beef. Meat possesses this advantage over vegetable food—in a given weight, it contains more nutritious matter. An essence or extract of meat thus contains, in a still smaller weight, all the nutritive properties essential to the maintenance of life, and, if mixed with a little fat, all the nutritive and combustible properties to be desired. Unfortunately, a complete extract of meat, which could be indissoluble in water, cannot be made, owing to the insolubility of fibrine.

Liebig's Beef-Tea. When flesh is finely lixiviated with cold water, all its soluble matters are removed, and a perfectly tasteless, inodorous residue is left, which, in every case, is white like fish. The solution remaining consists of lactic and inosinic acids, creatine, creatinine, a nitrogenous organic acid, which forms a pellicle on the surface like casein, though differing from it in many other respects. There are several other ingredients not very clearly made out, besides tartrate of potash, phosphates, especially of the alkalies, a little lime, and more magnesia.

It is this solution which is to be evaporated to dryness, and constitutes the best extract of meat. In doing so, however, as the albumen in it coagulates at 133° Fah., and the colouring matter at 158° Fah., and would thus be precipitated, it is advisable to evaporate it in a sand bath, the temperature of which must not exceed 120°; in this manner all the nutritive, combustible, and mineral matter will be retained. To this extract more or less water may be added, according as the strength of the tea is required. It is well to use on these occasions young animals in preference to old. In the former case the albumen will vary from 1 to 2 per cent., while in young it will be as high as from 12 to 14 per cent. The extract prepared by Mr. Roberton, of Manchester, obtained in the form of a dry powder, is the best I am acquainted with. However, except in cases where haste is required, there is scarcely any need of using this extract, since the beef-tea itself, prepared by

lixiviation in water over night, is more easily obtained. This, also, should not be heated above 120° to 130°; never boiled. If more body is required in it, a little flour or fine oatmeal may be added to the tea, so as to thicken it; also to suspend finely divided meat in it. A little lime water added to it will remove any acidity, if this be present in excess.

Hogarth's Extract of Meat Of the composition of this material, I can say nothing; I only speak from experience of its use. I have seen children, who have been reduced to a state of great weakness by feeding them by hand on improper diet, recover almost marvellously under its influence. That which I have used principally is the essence of beef. Its taste is much liked; and five or six teaspoonfuls by day, with a very little water, are well borne by children. Indeed, it is often borne in children affected with exhaustive diarrhœa from weaning, when milk and farinaceous food disagree.

This result may probably explain the success obtained by the administration occasionally of raw meat, which is but a step further in this direction. "In these circumstances", says Dr. West (*Diseases of Children*, p. 498), "there is still one article of food—raw meat—which, strange as it may seem, is often eagerly taken, and always perfectly well digested." Professor Meisse, of St. Petersburg (*Journal für Kinderkrankheiten*, vol. iv, 1845, p. 99), first recommended its employment in children suffering from diarrhœa after weaning; and it has been since then frequently given by other physicians in Germany in cases of long standing diarrhœa. The lean either of beef or mutton very finely shred may be given in quantities at first of not more than two teaspoonfuls four times a-day to children of a year old, and afterwards, if they crave for more, a larger quantity may be allowed. I have seldom found any difficulty in getting children to take it; often, indeed, they are clamorous for it; it does not nauseate if given in small quantities, nor does it ever aggravate the diarrhœa; while, in some instances, it has appeared to have been the only means by which the life of the child has been preserved. With returning convalescence the desire for this food subsides, and the child can without difficulty be replaced on its ordinary diet.

From the foregoing remarks, we may conclude:

1. That maternal warmth and the semi-erect position are essential to a child while it is taking its food. Hence the need of a particular kind of bottle.
2. That asses' milk does not appear from its composition calculated to do good to a child, if persisted in for any length of time.
3. That goats' milk is proved, from experience, to be even in its normal state most efficacious to a child; and that if the goat be properly dieted, it will yield a milk closely resembling human milk.
4. That as in the case of the goats' milk, so in regard to the cow, if the milk be pure and the animal be properly dieted, the same results obtain in both cases; but that *in towns* cows are so shamefully kept and fed, and the milk is so watered, that cows' milk cannot be considered, as a rule, as wholesome food.
5. That to remedy these abuses, stringent laws are imperatively called for.
6. That artificial milks closely resembling human milk may be readily prepared from pure cows' milk; and that these, together with beef-tea and eggs, may occasionally be safely substituted for breast milk.

52, Montagu Square, London, February 1858.

Reviews and Notices.

On Malformations, etc., of the Human Heart. With Original Cases. By Thomas B. Peacock, M.D., Fellow of the Royal College of Physicians, Assistant-Physician to St. Thomas's Hospital, etc. pp. 143. London: Churchill. 1858.

This treatise is a revised reprint of some lectures which were delivered by Dr. Peacock at St. Thomas's Hospital, and afterwards published in the *Medical Times and Gazette*. It affords evidence of careful research on the part of the author, who has succeeded in bringing together a large number of instances in which the organ of the circulation was the subject of more or less important malformations.

The subject is treated of under the following heads:—

1. Congenital Misplacements of the Heart.
2. Deficiency of the Pericardium.
3. Malformations of the Heart: including
   - *a.* Malformations dependent on arrest of development at an early period of fœtal life.
   - *b.* Malformations preventing the changes which should ensue after birth.
   - *c.* Malformations which do not interfere with the functions of the heart, but may lay the foundations of disease in after life.
4. Malformations consisting in the Irregular Development of the Primary Vessels.
5. Mode of Formation; Symptoms and Effects; Diagnosis and Medical Management, of Cases of Malformation.

The book is illustrated with eight plates.

1. Of Congenital Misplacement of the Heart, two varieties are mentioned; viz., transposition and exposition. In transposition to the right side, the other viscera are generally, but not always, displaced; sometimes the heart is well formed, sometimes the arteries are displaced relatively to the ventricles. Of *exposition* there are three varieties, viz., *ectopia pectoralis*, with or without defect in the thoracic parietes; *ectopia ventralis*, the heart being protruded through the diaphragm, and sometimes forming, sometimes not forming, an external tumour; and *ectopia cephalica*, in which the heart has been found lying in front of the neck.

2. Deficiency of the Pericardium very generally accompanies congenital displacement; but the investing membrane is sometimes absent when the heart occupies its natural position. Dr. Peacock believes that many alleged cases of absence of pericardium have been incorrectly reported; and that this malformation is rare. There have been, however, authentic instances recorded by Dr. Baillie, M. Breschet, Mr. Curling, and Dr. Baly.

3. In the division *a* of Malformations of the Heart, the first class of cases consists of those in which the heart has been found to consist of two cavities—an auricle and a ventricle. In all these cases, the subjects of the malformations died at most a few days after birth. In some instances, the heart is simply bilocular; in others, it presents various stages of transition from the simple form to that in which it consists of four cavities.

In the next class, of which twelve instances are recorded, there are three cavities—two auricles and a ventricle, either undivided or presenting a rudimentary septum. The aorta and pulmonary artery may have distinct origins; or (but more rarely) the latter may be impervious at the commencement—the blood being sent to the lungs by the aorta through the ductus arteriosus. In one case, the auricles opened into the ventricle by a common aperture. The malformation has been in some cases found to be accompanied with transposition of the origins of the great arterial trunks.

Another class of cases comprises those in which the heart consists of four cavities, one or both of the septa being imperfect. We extract Dr. Peacock's description of the various forms of imperfection which may be here presented.

"When the interventricular septum is only partially defective, the imperfection most generally occurs at the base, where, during fœtal life, the division of the cavities is last effected. In this situation there naturally exists in the fully developed organ a triangular space, in which the ventricles are only separated by the endocardium and fibrous tissue on the left side, and by the lining membrane and a thin layer of muscular substance on the right. This space indicates the point at which, in the turtle, there is a permanent communication between the two aortic ventricles: and it is interposed in man between the base of the left and the sinus of the right ventricle. Laterally it is bounded by the attachments of the right and posterior aortic valves, and its base is formed by the muscular substance of the septum. The dimensions of the space vary with the size of the heart; but ordinarily in the adult, the sides may be estimated at about seven lines, and the base is some-

what wider. When the lower part of the space is perforated, the left ventricle and origin of the aorta communicate with the sinus of the right ventricle; but, if the defect be situated high up, towards the angle of attachment of the valves, the communication may be between the left ventricle and the right auricle.

"Generally, when an aperture occurs in this situation, or, as it has been termed, in the *undefended space*, it has a triangular form; but, in some cases, it is oval or rounded; and in others, there are two or three apertures. When there is no source of obstruction at the right side, so that the right and left ventricles retain their just proportions, and the flow of blood is from the left to the right side, the openings from the left ventricle are usually larger than those into the right ventricle. Not unfrequently, also, under such circumstances, as the apertures enter the right ventricle immediately below the ring of the auriculo-ventricular opening, the folds of the tricuspid valve become expanded by the column of blood flowing into the right ventricle, so as to form one or more small sacs."....

"While, however, deficiencies in the septum cordis are most commonly situated at the base, they are not confined to that situation. Occasionally, though, so far as my observation serves me, very rarely, the division between the left ventricle and the infundibular portion of the right, is perforated, so as to form a communication between the left ventricle and the origin of the pulmonary artery. In some cases, also, openings occur nearer the apex; and in yet others, several openings are found in different parts of the septum.

"The defects in the interventricular septum which have been enumerated, may co-exist with imperfect separation of the cavities of the auricles; but such is not always the case; and, on the other hand, the auricular septum may be imperfect or the foramen ovale unclosed, while the partition of the ventricles is entire. When also the auricular cavities are imperfectly divided, the septum may be scarcely developed, and the valve entirely absent; or the septum and valve may both exist, but only in a rudimentary form; or the septum of the auricles may be fully formed, but the valve may be very imperfect, so as to be incapable of covering the opening; or the orifice may be entirely closed by the valve, and an aperture may exist in some other part of the auricular partition.

"Occasionally the imperfection exists at the base of the heart, where the septa of the auricles and ventricles should unite, and thus a peculiar form of malformation results, in which the four cavities communicate." (pp. 21-3.)

In noticing the question, whether apertures in the septum ventriculorum are always to be regarded as congenital, Dr. Peacock observes that there is no doubt that perforations do sometimes occur as the result of disease. But he cannot ascribe to this cause all the cases of perforation which have been placed to its account by some writers, especially by M. Bouillaud. When the interventricular septum is imperfect, there may be also irregularities in the origin of the large vessels. The pulmonary artery may arise directly from the left ventricle, or indirectly—*i. e.*, from a right ventricle which has no auricular opening, but which communicates by an aperture with the left ventricle. Again, the aorta may arise in part from the right ventricle, there being most generally some obstruction at or near the origin, or in the course of the pulmonary artery; such obstruction being dependent on deficiency and disease of the pulmonic valves, constriction of the orifice, or general smallness of the pulmonary artery. This malformation, which is one of the most common, is frequently associated with disease of the auriculo-ventricular valves, and with hypertrophy especially of the right ventricle. On the cause of this hypertrophy, Dr. Peacock observes:

"Some discussion has arisen as to the cause to which the hypertrophy of the right ventricle in cases of malformation is to be ascribed; and it has been supposed by Bertin, Bouillaud, and others, to be due to the entrance of aërated blood through the aperture in the septum. This explanation cannot, however, be accepted as satisfactory. When there exists any source of obstruction at the right side of the heart, as in by far the majority of instances in which the septum is imperfect, the course of the blood through the aperture will be from the right ventricle into the left; and it is probably only in the comparatively small proportion of cases, in which, with a defective septum, there is no source of obstruction on the right side, that the reverse obtains. In the latter class of cases, however, the right ventricle does not become hypertrophied to any great extent, though the patient may survive for many years. But, whenever there exists any source of obstruction at or near the pulmonic orifice, and whenever the deficiency in the septum is so great as to throw upon the right ventricle a large share in the maintenance of the systemic circulation, the right ventricle is invariably found more or less hypertrophied; even though the life of the patient may be prolonged only for a few weeks or months. The ventricular parietes also acquire as great an increase in width and firmness, in the cases in which there is obstruction at or near the pulmonic orifice without any defect in the inter-ventricular septum, and therefore without any entrance of aërated blood, as when that partition is imperfect. It seems therefore evident, that the hypertrophy of the right ventricle in these cases, is due to causes precisely similar to those which occasion hypertrophy of either ventricle in after life;—the increased growth which is consequent on the powerful muscular efforts to overcome the obstruction occasioned by the contracted or rigid state of the pulmonic orifice, or to maintain the circulation in the systemic, as well as in the pulmonic vessels." (pp. 33-4.)

A more aggravated kind of malformation than that last mentioned is presented in cases (of comparatively rare occurrence, as compared with the last class) where the orifice or trunk of the pulmonary artery is altogether impervious. The lungs have been found to be supplied from the aorta, either through the ductus arteriosus, or by means of special branches. The state of the two sides of the heart will vary according to the period at which the obliteration has occurred.

"If it occur while the growth of the septum is in progress, the right ventricle becomes large and powerful, and the aorta derives its chief supply of blood from that cavity, while the left auricle and ventricle are proportionately small. If, on the contrary, the obliteration occur after the septum of the ventricles is completed, the right ventricle and right auriculo-ventricular aperture became very much diminished in size, and the left cavities are usually large and powerful." (p. 53.)

Another class of developmental malformations consists of cases where a supernumerary septum exists in the right ventricle—a condition which probably explains the mention made by some writers of duplicity of the cardiac cavities.

"The occurrence," says Dr. Peacock, "of this defect in the right ventricle has, I believe, been correctly ascribed by Mr. Grainger to irregularity in the development of the two portions of which the cavity originally consists. In the turtle, and other of the higher reptiles, the heart consists of three imperfectly separated ventricles; the right and left systemic ventricles, from which the two aortæ arise, and a small anterior ventricle which gives origin to the pulmonary artery. The latter is entirely separated from the left, but communicates with the right aortic ventricle. The sinus and infundibular portion of the right ventricle are, in man, the analogues of the right systemic and pulmonic ventricles of the turtle. The right ventricle in the well formed human heart always shows, at the point at which the two portions unite, some indications of division by the muscular columns to which the folds of the tricuspid valve are attached; and, in cases of malformation, this is still more marked. When also a supernumerary septum is developed, it is at the point of union of the sinus and infundibular portion that it occurs; and the partition of the cavity of the ventricle is by part due to hypertrophy of the muscular columns which usually occupy this situation, and partly to the thickening and induration of the lining membrane. The opening by which the portions of the ventricle communicate often consists of a firm fibro-cartilaginous ring, not unfrequently displaying old or recent deposits of lymph upon its edges. In form it is usually round or oval, and it may be so small as only to admit the passage of a crow- or a goose-quill, or it may readily allow of the finger being passed through. The effects upon the general form of the ventricle vary with the degree of obstruction which the septum occasions, the sinus of the ventricle being large and thick (and especially so when the septum cordis is also deficient, so that the aorta has a communication with the right ventricle), while the infundibular portion (if there be no other source of obstruction at the orifice of the pulmonary artery) becomes atrophied, and is reduced to a very small cavity." (pp. 60-61.)

In the division *b* of malformations, the premature closure of

the fœtal passages first comes under notice. Of premature closure of the foramen ovale, three cases have been recorded, by Vieussens, Mr. E. Pye Smith, and Dr. Vernon. The infants lived respectively thirty, twenty-one, and four and a half hours. In all there was lividity; the right side of the heart and the pulmonary artery were enlarged, while the left cavities were small.

Obliteration of the ductus arteriosus occurs not unusually in malformed hearts; sometimes when the septum of the ventricles is very imperfect, sometimes when this development of the heart is more advanced. The effects of this malformation are that "the pulmonary artery gives passage during fœtal life only to the very small portion of blood which there circulates through the lungs, and is in consequence so imperfectly developed as to be incapable of conveying the larger quantity, which should be transmitted after birth."

The author refers also to instances of obliteration of the right and left auricle, ventricular apertures, and of the aortic orifice.

Patency of the foramen ovale and of the ductus arteriosus next forms the subject of some instructive remarks; for which, however, we must refer the reader to the book itself.

Division *c* includes irregularities in the valves. The semilunar valves may form only one curtain, protruded funnel-wise in the course of the vessel, and presenting three distinct *frena* or bars indicating the original division into segments. This malformation is most frequent in the pulmonary artery.

In the most frequent form of malformation of the semilunar valves, there are two segments, evidently arising from adhesion of the contiguous sides of the original valves.

The most rare form is that in which there are two large segments, with a small rudimentary (or atrophied) valve lying between them.

These valvular defects, though not necessarily interfering with the functions of the heart, may lay the foundations of disease in after life.

"1. When the whole of the segments are fused together, or when two only are united, the valves not unfrequently become the seat of chronic inflammation, by which they are rendered thick and unyielding, and which often goes on to the production of extensive ossification; thus inducing, first obstruction to the flow of blood from the ventricle into the aorta, and then incompetency, by which the blood which has entered the aorta is allowed to regurgitate into the ventricle. This process is often so slow in its progress, that the ventricle accommodates itself to the additional exertion required; and the disease becomes a source of manifest evil only after the lapse of many years, when the valves have become so immoveable as not to allow of the transmission of a sufficient column of blood into the aorta, or so much reduced in size as not to be capable of preventing its return; when the ventricle is no longer capable of performing the extra labour required to overcome the obstruction; or when the effects of more acute disease are superadded to the original valvular defect.

"2. When two of the valves are united, the line of fusion, or of former separation, is less readily extensible than the other parts of the united fold; and thus that portion does not expand with the progress of growth so as to accommodate itself to the natural enlargement of the orifices, but is as it were held back, and leaves an open space between its edge and the other segment, by which the blood regurgitates from the aorta into the ventricle.

"3. The tendency to regurgitation in the latter class of cases, and also in the instances in which the fold does expand equally in all parts, is increased by the want of the support to the edge of the larger curtain which should be afforded by the corresponding angle of attachment. The edge of the valve thus becomes retroverted, and regurgitation from the aorta into the ventricle is either aggravated or occasioned." (pp. 95-96.)

The semilunar valves are sometimes increased in number; but this does not appear to interfere materially with the exercise of their functions.

The tricuspid and the mitral valves are sometimes found with their segments fused together. This condition Dr. Peacock regards as of congenital origin, in at least many instances.

4. Under the head of Malformations consisting in the Irregular Development of the Primary Vessels, the author first notices cases of transposition of the aorta and pulmonary artery—the aorta arising from the right ventricle, and the pulmonary artery from the left. Sometimes there is also irregular distribution of the arteries and veins. Another important kind of malformation is that in which "the aorta, after having given off the vessels to the head and upper extremities, becomes greatly contracted or obliterated, or is entirely wanting; so that the inferior parts of the body derive their supply of blood through the ductus arteriosus and pulmonary artery."

5. In discussing the Mode of Origin of cardiac malformations, Dr. Peacock first notices the effects of obstruction during fœtal life of the orifices of the right and left sides respectively, determining the performance of a twofold function on the part of the opposite vessels, and, in general, hypertrophy of the non-affected side of the heart.

Misplacement or unusual distribution of the vessels must be ascribed to faulty division of the bullus arteriosus, and to the irregular development of the bronchial arches.

The Symptoms arising from congenital malformation are concisely described by Dr. Peacock. They appear most generally at or soon after birth, but in rare cases are deferred until the fourteenth year or later. Among them, cyanosis receives special notice. The author reviews the various opinions which have been held regarding the causes of this state; and arrives at the following conclusion.

"The inferences to be drawn from the facts brought forward appear to be, that while obstruction to the flow of blood through the lungs or from or into the right ventricle, giving rise to general venous congestion, is the essential cause of cyanosis, the intensity of the lividity and its peculiar colour are modified by other circumstances.

"1. It is probably necessary to the production of intense cyanosis, that, as suggested by Dr. Chevers, the obstruction to the circulation should either have been present before birth, when the capillary vessels are naturally more capacious than in the adult; or, that it should have existed before the full development of the body was attained, and while the entire vascular system was more readily dilatable; or, at least, that it should have been of long duration, so that the capillary vessels may have become greatly expanded.

"2. The condition of the integuments also probably materially affects the production of cyanosis. In cases in which the peculiar blue or black colour is observed, the skin is usually very thin, and the body generally emaciated. Where, on the contrary, the discoloration is rather of a deep rose tint, the patients are not much emaciated, or are even, in some cases, tolerably well nourished; and, where the skin is pallid, there is either no material congestion, or it is masked by the œdematous condition of the integuments.

"3. There can be no doubt that the intensity and peculiar tint of the cyanosis must be much affected by the colour of the blood in the vessels. Where a very small portion of the blood can be submitted to the influence of the air in the lungs, the whole mass must be of an unusually deep colour, and the hue of the surface generally will be proportionately high." (p. 128.)

The Duration of Life in general varies with the intensity of the malformation. Moderate contraction of the orifice or trunk of the pulmonary artery is not incompatible with a tolerably long life. When this state is accompanied by an open foramen ovale, the duration of life is less, and is still further curtailed when the septum of the heart is imperfect. When the pulmonary artery is entirely impervious, or when the heart consists of a single ventricle with one or two auricles, the duration of life is very short, rarely extending beyond the first year; though, in the last named category, there have been found instances in which life has been prolonged to eleven, sixteen, twenty-three, and twenty-four years. When an abnormal septum exists in the right ventricle, the effects on the duration of life correspond very closely with what is observed

in cases of impediment at the pulmonic orifice. Transposition of the main arteries, and the supplying of the descending aorta through the pulmonary artery, are of course incompatible with the maintenance of life for any considerable period. Malposition of the heart, or absence of the pericardium, may not prevent the attainment of a long life.

The Causes of Death from cardiac malformations are thus classed by Dr. Peacock:

"1. Cerebral disturbance resulting from the defective aëration of the blood and congestion of the brain.

"2. Imperfect expansion, collapse and engorgement of the lungs.

"3. Effusion into the cellular tissue and serous sacs from failure of the power of the heart, or recent disease superinduced on the original cardiac defect.

"4. Exhaustion from imperfect performance of the respiratory functions and the circulation of blood in great part venous.

"5. Other diseases predisposed to by the defective conformation of the heart; as apoplexy or paralysis from engorgement or softening of the brain, or extravasation of blood; congestion or inflammation of the lungs, croup, bronchitis, pneumonia, pulmonary apoplexy and hæmoptysis, pleurisy, etc.; disorder of the digestive organs, vomiting, diarrhœa, jaundice, etc.; renal and tuberculous affections, etc., with other diseases occurring accidentally.

"Of these differing causes, the first two are by far the most frequent, and especially in children in which the heart is very imperfect, and life is therefore only prolonged for a very limited period. Serious dropsical affections less frequently occur than the degree of obstruction to the circulation would lead us to expect. Gradual exhaustion from imperfect nutrition and disorder of the digestive organs, are occasionally the causes of death both in infants and older subjects." (p. 135.)

The majority of cases of malformation prove fatal at a very early period, and any treatment is likely to be of little avail. But, so far as medical treatment can be applied, it consists "in the hygienic management of the patient, so as to maintain the circulation and give tone to the general system; in the avoidance of the various causes which may aggravate the existing defects in the conformation of the heart, or give rise to secondary disease in other organs; and in the relief of urgent symptoms when they arise."

The preceding is an analysis of Dr. Peacock's book—a work which bears evidence of being the result of much patient literary and practical research. It is, we believe, the only—certainly the best—treatise on congenital Malformations of the Human Heart which we possess; and we are sure that the author will receive, as he deserves, the thanks of all pathologists for having so ably collected and arranged various instances in which more or less important variations from the normal type have been found in the organ of circulation.

The Sanitary Review and Journal of Public Health. Including the Transactions of the Epidemiological Society of London. Edited by Benjamin W. Richardson, M.D. No. xiii, April 1858.

This is the commencing number of a fourth volume of Dr. Richardson's useful periodical. The principal contents are: a copious analysis of the recently published Report of the Army Sanitary Commission; an article advocating, on sanitary grounds, the introduction of Physiology into General Education; an able discussion of Professor Miller's treatise on *Alcohol: its Place and Power;* a Report on the Health of the Officers employed in Her Majesty's Post-Office, by Dr. Waller Lewis; papers on the Injurious Effects of Underground Kitchens, by Dr. F. J. Brown; on Epidemics and their everyday Causes, by Mr. W. I. Cox; and on the Influence of Sewer Emanations, by Dr. Herbert Barker; and a Scheme for the Drainage of London, by Dr. J. E. Huxley. About forty observers also continue to furnish the result of their observations in various districts of the kingdom.

The Transactions of the Epidemiological Society include an Account of an Epidemic of Small-pox in Jamaica in 1851-2, by Dr. E. C. Seaton; and a Report of an Outbreak of Fever in an Ottoman Line-of-Battle Ship during the late War, by Mr. J. N. Radcliffe.

Of the above articles, we reprinted last week the greater part of Dr. Barker's highly interesting communication; and of the rest of the contents we would say, that, in greater or less degree, they keep up the character of the *Sanitary Review* as a publication of high practical utility, and well fitted to meet the demands of the present time.

Elements of Practical Midwifery: or Companion to the Lying-in Room. By Charles Waller, M.D., Obstetric Physician to, and Lecturer on Midwifery at, St. Thomas's Hospital. Fourth edition, with plates. pp. 190. London: Churchill. 1858.

This little work is what it professes to be—elementary. While the author presupposes a certain amount of anatomical and physiological knowledge on the part of the student or practitioner using his book, he gives a practical outline of the art of midwifery, leaving the more extended development and illustration of the subject to the writers who already occupy the field. To the young accoucheur desirous of being reminded of his duties in few and simple terms, this work is calculated to be useful.

British Medical Journal.

SATURDAY, APRIL 24th, 1858.

MEDICAL REFORM.

The medical corporations of the United Kingdom have combined in an urgent request to the Home Secretary to introduce Mr. Headlam's Bill of last year as a government measure. This request has met with an indirect refusal on the part of Mr. Walpole, who has so far acted with good sense in the matter; for the introduction of a third Bill would most assuredly have the effect of altogether shelving medical reform for the present session. We cannot well understand the force of the objection (if it is correctly reported) which the corporations bring forward against Mr. Cowper's Bill. They are said to have urged that its tendency is to "bring down the profession to a low level." Now, on points relating to the standard of medical instruction, Mr. Cowper's Bill indeed leaves nearly everything to the discretion of the Council; while Mr. Headlam's Bill makes distinct provisions. But the council which is proposed in Mr. Cowper's measure, is precisely the same as that of Mr. Headlam's Bill which the corporations desire to have introduced. These bodies, then, must have very little confidence in the moral courage or integrity of their representatives and of their proposed colleagues, if they are so thoroughly convinced that it is necessary to bind them down to a special course of action by special clauses of an Act of Parliament. The course which was taken last year by this Association remains as sufficient proof, that it has no desire to do otherwise than cooperate with the medical corporate bodies in promoting the passing of a measure which shall afford a fair instalment of medical reform; and with this view it would without doubt support Mr. Headlam's Bill, if no other, or only such an one as Lord Elcho's, were in the field. But, when a Bill is introduced which, though varying some-

what from that formerly approved, is sufficiently similar to it to be supported by the profession, the wiser plan would be to endeavour to procure amendments in it, rather than to raise confusion by introducing a third measure.

We have already shown that the Medical Reform Committee of this Association have proposed some important amendments, which Mr. Cowper is, we understand, prepared to adopt; and there cannot be the slightest doubt that any other reasonable emendation will meet with the attention of the framer of the Bill. Mr. Headlam must himself see the futility of undergoing the labour of reintroducing his measure, considering the close copy Mr. Cowper has made of it, and the expressed determination of the Government to make the best terms they can for all parties.

With regard to Lord Elcho's measure, we do not anticipate any trouble, as no one but the *Medical Times and Gazette* has a word to say for it. The medical profession will repel with unmitigated disdain the officious attempts of Lord Elcho to legislate for it, fresh as he is from the prandial triumphs of the homœopaths. In the advertisement of the public dinner lately given in aid of the Homœopathic Hospital, Lord Elcho was announced as a steward; and, for all we know, his Lordship, who receives the support of the *Medical Times and Gazette*, may have been seen hobbing and nobbing with Lord Ebury, and addressing in eulogistic language the score of broken down M.D.s who have become apostates from true medicine for the sake of pelf. And such a man is seriously put forward as a medical reformer!

CLERICAL HOMŒOPATHY.

We have had occasion many times lately to draw the attention of the associates to the fact, that the clergy in country places are beginning to usurp the duties of the medical man. Not content with the care of souls, they are insidiously attempting to introduce clerical medicine—to deal with the sick bodies as well as the seared consciences of their flocks. The singular ignorance of the clergy in all matters where physical science is concerned is notorious; hence their proneness to fall into the snares of the day, such as electro-biology, Mesmerism, spirit-rapping, etc.; and lastly, homœopathy. Hitherto their patronage of the latter fraud has been confined to dosing themselves with harmless globules; it would appear from a letter, however, which will be found in our Letter-Box, that our spiritual friend and guide is not inclined to stop at making experiments upon his own person, but has commenced homœopathic practice himself among his parishioners, and is taking measures to establish a dispensary, and to settle a homœopathic practitioner among them. The name of this worthy pastor is John Garrett, and he is vicar of St. Paul, Penzance. Ever since his introduction among his parishioners, says our correspondent, his object appears to have been quite as much to propagate globulism as Christianity; and, in order to accomplish the former at the expense of the latter, he has taken advantage of his peculiar position and peaceful calling to stigmatise by implication all the medical practitioners of the parish in which he resides! He has actually had the audacity to distribute to his congregation, by the hands of two churchwardens, standing one on each side of the church-door, an address which will be found at length in our correspondence columns, in which he says: "For several years I have been acquainted with the new and beautiful system of homœopathic treatment of disease; this has been steadily working a quiet revolution in the practice of medical men all over the civilised world. I know no good reason why a means of comfort and relief in sickness, which is adopted by large numbers of the highest and most wealthy families in England, should not be placed within the reach of the humbler classes and mass of our population."

The latter portion of this paragraph is strictly correct. Whilst we write, we have before us the advertisement of the public dinner given on Wednesday in support of the London Homœopathic Hospital, at which the Duke of Wellington took the chair, surrounded by half a dozen lords. If there is a class only a little less ignorant of physical science than the clergy, it is the upper class of this country. Its members have ever been a prey to every new nostrum and every pseudo-scientific fraud that charlatanry has invented; their support of that vile fraud, homœopathy, is therefore worthily trumpeted forth by the vicar of St. Paul, who seems to think that the poor cannot do wrong in following the footmarks of the rich, notwithstanding the proverb of the camel and the eye of the needle.

But what shall we think of the daring of this vicar, who does not hesitate to treat two hundred patients weekly? 'Tis true their cases are, in his opinion, but trifling, and the doses he gives infinitesimal; but imagine the sins of omission he must be guilty of—the inroads made of insidious disease, ere the regular practitioner comes to repair the work of the quack! Independently of the positive evil done by the planting of this infamous fraud in the midst of a simple neighbourhood by the hand of a minister having authority, let us ask what must be the state of feeling between himself and the resident medical practitioners? It must be nothing less than positive hatred; the priest and the physician, who should go hand in hand, can never come together in this parish "since the Providence of God" sent John Garrett there to minister, without producing a public scandal. This question is one which concerns especially the country practitioners of England.

Heresies of this kind are contagious, especially when we have to deal with the clergy, who are never disinclined to increase their own power and importance by grasping at an influence physical as well as spiritual. What associate, for instance, who is working ably and beneficially in his native parish, distributing to it the little science it has ever known, and practising with skill the profession that has been built up by the painful labours of the past, is certain that he will not wake up some fine morning and find that the vicar has taken in hand a bran new homœopathic doctor, and has determined to "push him", even by the device of distributing addresses in favour of the quack at the Church door? We say that it is time the medical men of this country should arouse themselves, and attack the vile theory wherever it rears its head. Why should the medical men practising in the parish of St. Paul, Penzance, tamely submit to the most unjustifiable conduct on the part of their pastor? If they have one particle of professional spirit they will at once appeal to the Bishop, who, however exalted in his notions of the priestly character, must yet have good sense

enough to see that it cannot be enhanced by an impertinent interference with the duties and rights of the physician.

THE WEEK.

We publish in our news columns a report of the proceedings in a Commission of Lunacy, lately held at the Gray's Inn Coffee House, for the purpose of drawing attention to the singularly divergent opinions of eminent medical psychologists upon matters which should ere this have been put beyond the possibility of dispute. Here we find a clergyman performing certain acts, and expressing certain opinions, which, in the opinion of Drs. Winslow, Sutherland, Southey, and Wood, were clearly indicative of madness; whilst, on the other hand, Drs. Conolly and George Johnson were of opinion that they only amounted to oddities, or to "singular", "extreme", or "eccentric" opinions. It is certainly very unfortunate that, from time to time, inquiries of this kind should expose to the public the very opposite manner in which two medical men will regard the same phenomena of mind. Would it not be possible to agree upon some common ground, upon which all medical psychologists may meet? Cannot we agree even upon first principles? To take the case in point, for instance: Mr. Leach states that he had "a direct command from the Deity to wear a long beard". Ought there to be any doubt about the state of mind such an expression indicates? We think not: and we feel certain that medical psychologists are heaping up in the public mind contempt for themselves, by their neglect to lay down any common principles of agreement. We know full well the difficulty of attempting to construct charts of the narrow—sometimes almost unseen—boundaries between sanity and insanity; but very much could be done, if psychologists were to set about the matter with a will, in the cool moments of philosophical discussion, instead of leaving matters until they face each other before the Commissioner, more in the spirit of intellectual gladiators than of calm inquirers after the truth. We recommend this question to the consideration of those gentlemen interested in medical psychology, who intend to be present at the Edinburgh Meeting.

We observe that petitions are daily being presented to the House of Commons from Medical Officers of Poor-Law Unions, the general prayer of which is for improved remuneration. This dropping fire is all very good in its way; but we trust that the profession are preparing themselves for "a long pull, a strong pull, and a pull altogether," which shall lift the union surgeons into that position which is their right. Mr. Griffin, indefatigable as ever, has lately issued a statement of the grievances of the Poor-Law Medical Officers, together with a draft Bill drawn up by him. This pamphlet we recommend to the earnest attention of our Associates; it contains matter which ought to rouse even the most apathetic from his lethargy.

In the Journal for April 10th, we noticed a statement made by the *Times*, that His Royal Highness the General Commanding-in-Chief had sanctioned the formation of a hospital in the camp at Colchester for the sick wives and children of the soldiers; and we joined our contemporary in expressing a hope that a similar hospital would be commenced at Aldershot. We have now much pleasure in making a correction of the latter part of the above remarks. Our associate Dr. Tom Guy, who is attached to one of the militia regiments stationed at Aldershot, informs us that an institution of the kind to which we have referred was provided for that station in November 1856. The merit of its institution is due to Dr. Gibson, C.B., the principal medical officer at the camp, who established it with the sanction of his Royal Highness the General Commanding-in-Chief. It has conferred an immense amount of benefit on the wives and children of the men: and Dr. Guy informs us that numerous instances in confirmation of this have come under his notice within the last five months during which he has been stationed at Aldershot with his regiment.

M. Brachet, an eminent practitioner at Lyons, recently deceased, has performed two acts of liberality which will render permanent the honour in which his name is already held by the profession in his native country. He has bequeathed to the medical school of Lyons his library; which, from his well known reputation as a medical *litérateur*, is, in all probability, a most valuable gift. But more than this, he has further shown his practical benevolence by presenting to the Medical Association of the Rhone a country seat of his, with a large endowment, for the purpose of founding an asylum for medical men who have been reduced to poverty, or who have become, through age or infirmity, incapable of pursuing their profession.

Association Intelligence.

LETTERS AND COMMUNICATIONS.

Letters or communications for the Journal should be addressed to Dr. Wynter, Coleherne Court, Old Brompton, S.W.

Letters regarding the business department of the Journal, and corrected proofs, should be sent to 37, Great Queen Street, Lincoln's Inn Fields, W.C.

ADMISSION OF MEMBERS, AND PAYMENT OF SUBSCRIPTIONS.

The General Secretary of the British Medical Association begs to call the attention of members to the Laws regarding the Admission of Members, and the Payment of their Subscriptions.

"*Admission of Members.* Any qualified medical practitioner, not disqualified by any bye-law, who shall be recommended as eligible by any *three* members, shall be admitted a member at any time by the Committee of Council, or by the Council of any Branch."

"*Subscriptions.* The subscription to the Association shall be One Guinea annually; and each member, on paying his subscription, shall be entitled to receive the publications of the Association for the current year. The subscription shall date from the 1st January in each year, and shall be considered as due unless notice of withdrawal be given in writing to the Secretary on or before the 25th of December previous."

Either of the following modes of payment may be adopted:—

1. Payment by Post-Office Order to the Treasurer (Sir C. Hastings, M.D., Worcester), or to the undersigned.
2. Payment to the Secretary of the Branch to which the member belongs.
3. Members residing in the Metropolis and vicinity can make their payments through the publisher of the British Medical Journal, Mr. Thomas John Honeyman, 37, Great Queen Street, Lincoln's Inn Fields, W. C.

Philip H. Williams M.D., *General Secretary.*

Worcester, March 1858.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Metrop. Counties. [Special General Meeting.]	Dr. Lankester's, 8, Savile Row, London.	Tuesday, April 27th, 4 P.M.
Bath and Bristol. [Ordinary Meeting.]	White Lion Hotel, Bristol.	Thurs., April 29th, 8 P.M.

Editor's Letter Box.

CLERICAL HOMŒOPATHY.

Sir—I am desirous of bringing the enclosed address under the notice of the medical public, to show to what extent parochial ministerial *kindness* (?) and interference may be carried.

This address was yesterday (Sunday) distributed to the congregation of St. Paul, on their dismissal from church, by two churchwardens, specially stationed one on each side of the church porch.

I may state that the Rev. Mr. Garrett came to the parish about six months ago; and, from the first day of his arrival, his object has been, not to spread religious views, but to make himself a popular man by developing the miracles of homœopathy. He commenced by giving advice and medicines himself. The credulous, of course, rushed to him in numbers. Then, under his auspices, with those of our own incumbent (who is also a proselytising homœo), and an excitable quaker, already a victim of Mesmerism and vegetarianism, a homœopathic Dispensary is formed in this town; a doctor with a guaranteed income being provided. This done, his own parish next claims attention; and, after writing in the public papers about the poverty of the people, etc., he next provides them with another homœopathic doctor.

I need scarcely say, that the statements as regards the want of medical men are utterly groundless. The parish has its regular paid attendant; and there are at least three medical men of this town who have clubs in the parish, and who devote a portion of every day to visiting this district. Besides, in cases of emergency, a medical gentleman—not in practice—resident in the very centre of the principal village of the parish, is at all times ready to afford his assistance.

The reverend gentleman's kindness is mere clap-trap, as he seems actuated by an unfair spirit of interference and opposition to the regular attendant. Canvassing from door to door, inquiring out the sick, suggesting and insinuating, doubting if the regular prescribed remedies were judicious, making his calls at times when he knows the regular attendant is absent, has hitherto been his method. So far, his system progresses; his ready patients being the credulous and uneducated, who are ever ready to provide pains and aches, and to swallow tasteless liquids, whenever shillings and gratis trap-religious cant are the sweetmeats to make the absurdity palatable.

I am, etc., Observer.

Penzance, April 19, 1858.

P.S.—St. Paul is the adjoining parish to Madern, in which Penzance is situated.

"*An Address to the people of the parish of St. Paul.*

"My dear Friends,—Since the Providence of God sent me to work amongst you as vicar of your parish, I have been penetrated with a feeling of sorrow at the severe sufferings which I have witnessed in so many families from bodily pains and sickness; I believe it to be my duty to act as a friend towards you in relieving those sufferings as much as can lie in my power. I am well aware with what greater calmness any person can enter into the solemnities of religion, in preparing for the awful change of death, when agonising pain has been relieved; and I also know the mighty value it is to any sufferer to be rapidly restored to health and strength when it may be in accordance with the Divine will to have the sickness removed. For several years I have been acquainted with the new and beautiful system of homœopathic treatment of disease; this has been steadily working a great revolution in the practice of medical men all over the civilised world. I know of no good reason why a means of comfort and relief in sickness, which is adopted by large numbers of the highest and most wealthy families in England, should not be placed within the reach of the humbler classes and mass of our population: in my opinion it is one of the best principles for social happiness in our day, that every friendly exertion should be made by persons of all degrees of station and influence to put within the poor man's reach every substantial benefit and comfort which improvements in science are placing at our command; I consider this the course best calculated to ensure lasting bonds of union between all branches of the people.

"Besides my earnest wish to give you the comforts to be derived from the new medicines to which I have referred, I have been more and more impressed with the feeling, that so large a parish as our own, with a population exceeding *six thousand*, well deserves a Resident *Medical Gentleman*, to be amongst you at all times, ready to relieve by his talents and experience such sufferings as we must expect from sickness and disease. I have felt it a painful aggravation of the sufferings I have witnessed, that so large a population should be compelled to send to an average distance of more than two miles in every case requiring medical attendance and advice: the serious extent to which you have felt this want has been opened to my mind by the crowds of persons who have been seeking such relief *as I could myself supply*, requiring from me attendance at two places in our parish for *fourteen hours every week*, to advise more than *two hundred* sufferers how they can be relieved.

"I rejoice most sincerely that after long and anxious negociations I have succeeded in securing for our parish the great blessing of a medical adviser, who has undertaken to fix his residence among you, and who has the highest qualifications, both for personal character and professional talent and experience, which I could wish or hope to meet with: through the assistance of this new friend, I am enabled to place the new system, combined with all that is most valuable in the old practice of medicine and surgery, within your reach, on such moderate terms as I hope will enable me to feel that no family in our parish need in future suffer pain or sickness in consequence of a want of eminent medical attendance being close at hand. I am sure I have only to invite you to assist me in placing on a safe foundation the institution I have explained in the paper which follows this address. My own experience tells me that, by courtesy of manner and gratitude for any benefits his attendance may confer upon your families, you will make the residence of our friend both happy and comfortable amongst us.

"Believe me, my dear friends, affectionately yours,

"John Garrett, *Vicar of St. Paul.*

"Vicarage of St. Paul, Penzance, April 15, 1858."

INTRAPROFESSIONAL PUFFING.

Sir,—Will you oblige me by inserting the following advertisement by a Cornish surgeon, extracted from the *West Briton* paper? We cannot be much surprised at the increase of the system of medical puffing, while men, having the surgeon's diploma, so far forget themselves and their relation to the profession, as to stoop to such means for getting practice.

I am, etc., Medicus.

Launceston, April 16th, 1858.

P.S.—I enclose my card for your satisfaction.

"The late Mr. Boase, Surgeon, Redruth.

"*To the Editor of the West Briton.*

"Sir,—It will perhaps be prudent for me to state that I have been induced to publish this letter at the suggestion of a member of the family of Mr. Boase, recently deceased, a gentleman who was deservedly esteemed for an intimate acquaintance with the duties of his profession.

"Having been the only pupil he ever had during his long surgical practice, and having received his instructions for the space of six years, I became thoroughly conversant with his mode of compounding medicines, and in particular his Female Pills, which have been widely known, and are to this day, I doubt not, justly celebrated.

"The composition of these pills was only known to the late Mr. Boase's father and the deceased, and the writer of this letter.

"I now beg to inform the public that Female Pills of precisely the same quality may be obtained at my surgery; and that, having faithfully adhered to Mr. Boase's mode in the treatment and cure of diseases, I shall continue the same course with regard to all patients who may place themselves under my care. Several ladies have requested me to make this an-

nouncement relative to the female pills, solely from a desire to benefit the afflicted of their own sex.

"I am, your obedient servant,

"Henry Harriss, *Surgeon.*

"(Dated) Redruth, 7th April, 1858."

DISCOURAGEMENT OF UNPROFESSIONAL CONDUCT.

Letter from W. H. Ranking, M.D.

Sir,—I have observed with much satisfaction the resolutions of the Reading and neighbouring practitioners in reference to homœopathy. They have set an example which should be universally followed. The events of the past few weeks, in which we have had the melancholy spectacle of a London surgeon of repute linking himself to this imposture, and the senior surgeon of a provincial hospital "acting under" one of its apostles, prove forcibly that the time has arrived when those members of our profession who would preserve their character for honesty of principle must no longer forbear to speak out, and must, moreover, by their practice, show that they make no distinction, in the point of professional and moral rectitude, between the avowed practisers of quackery and those who, by meeting such at the bedside, tacitly countenance them, and are equally deserving of the scorn of honourable minds.

I am, etc., W. H. Ranking.

Norwich, April 18th, 1858.

TREATMENT OF CONTRACTED KNEE-JOINT.

Letter from J. S. Gamgee, Esq.

Sir,—Perusal of Mr. Vose Solomon's letter in the current number would have left me with regret on witnessing how completely he has misinterpreted me, did I not feel that to such misunderstanding the world is indebted for my fellow-townsman's erudite communication. Even supposing that I stood in need of being informed of the fact that Dieffenbach is the author of a treatise on orthopædic surgery, it cannot have escaped the observation of most readers that, in the passage of Mr. Holmes Coote's paper on which I commented, the fullest justice is done to the great Prussian. What I alleged was simply that an undue share of merit had been attributed to Mr. Brodhurst for having introduced operative modifications, the merit of which is certainly for the most part due to my valued friend Palasciano of Naples, as, indeed, Mr. Brodhurst in great part admits in his recent memoir published in the *Medico-Chirurgical Transactions.* I should not trouble you with this note, did I not feel solicitous to prove my anxiety for the utmost accuracy, even on a point of little interest beyond that which attaches to the elimination of all errors, be they small or great. I am, etc., J. Sampson Gamgee.

18, Harbourne Road, Birmingham, April 19th, 1858.

CASES OF INJURY OF THE BRAIN.

Letter from Thomas Smith, Esq.

Sir,—My patient with injury to the brain, referred to in the Journal of April 10th, p. 299, died on the 13th instant, having survived the accident five weeks and twelve hours. I append a short sketch of the case.

G. S., aged 32, was engaged on March 21st in feeding a steam saw-mill, when he fell forwards in an epileptic fit upon the saw, which took off a piece of the skull on the right side, two inches and five-eighths in the longest and two inches and a quarter in the shortest diameter, and with it a slice of the brain about two inches in diameter. He was brought home a distance of three miles; he walked with slight assistance to his home, and was put to bed, where I found him rather depressed from loss of blood, but perfectly sensible, and with no symptom to mark the magnitude of the injury.

The treatment consisted in perfect quietude, the head supported in an elevated position, cold water dressings to the wound, and regulation of the bowels by injections. For a month he neither required nor took any medicine; there was no symptom to treat. He appeared in his usual health; the pulse and all the functions, bodily and mental, went on as in health.

There was, of course, a considerable hernia cerebri; but granulations shot out from it, from isolated spots of the denuded cranium, and from the scalp-wound, which coalesced at the circumference of the opening in the skull, and had commenced forming a tough membrane over the protruded portion of the brain.

On the 8th instant, the first symptoms of constitutional disturbance began. The pulse rose; the appetite slightly failed; and light delirium, with confusion of intellect, set in. On the 10th, paralysis of the left side was complete. On the 11th, he became quite unconscious, and gradually sank on April 13th.

The *post mortem* examination disclosed a diffluent state of a portion of the posterior hemisphere close to the wound, bounded by a disorganised part of the brain, of a yellow colour. On the right ventricle was found a large clot of loose coagulum, floating in a quantity of serum. The left hemisphere and the whole of the dura mater were quite healthy, no inflammation of the latter having arisen from the injury. The disorganisation was confined to the substance of the brain.

I am, etc., Thomas Smith.

Crawley, Sussex, April 19th, 1858.

Parliamentary Intelligence.

HOUSE OF LORDS.—Monday, April 19th, 1858.

SALE OF POISONS.

In reply to Lord Campbell—

The Earl of Derby, who spoke with his back to the gallery in a low tone of voice, and exclusively addressed himself to the Lord Chief Justice, was understood to say that the subject had been under the consideration of the Home Secretary; and if a Bill could be prepared in a form likely to meet with the assent of Parliament, it would be introduced.

HOUSE OF COMMONS.—Friday, April 16th.

NETLEY HOSPITAL.

Mr. Weguelin asked the Secretary for War whether the Government had appointed a Committee to investigate the report made by the Barrack and Hospital Commissioners upon Netley Hospital; and, if so, whether they were prepared to present to the House the report of that Committee at the same time as they laid the report of the Barrack Commissioners upon the table of the House?

Mr. Tite inquired whether the works had been suspended; and if there was any objection to place in the library of the House the plan on which the Hospital was now to be proceeded with?

General Peel was understood to say, that such contradictory reports had been made on this subject, that he had deemed it advisable to send down a Board of Medical Officers, who had hitherto given no opinion on the matter, to report upon the site and construction of Netley Hospital, and other matters connected with the establishment; that he had submitted the names of several medical gentlemen to a right honourable friend of his (Mr. S. Herbert), who had devoted much attention to the subject, requesting him to offer any suggestions he might think fit; and that when he received his right honourable friend's reply, he would immediately send down the Board. In answer to the honourable member for Bath (Mr. Tite), he begged to say that he would at once have suspended the works had it not been impossible to do so, as they were undertaken on contract; but he had no objection to lay the plans before the House.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

In these lists, an asterisk is prefixed to the names of Members of the Association.

BIRTHS.

Cooper. On April 17th, at 8, Harley Place, Bow, the wife of J. P. Cooper, Esq., Surgeon, of a son.

Foulis. On April 16th, in Edinburgh, the wife of Robert Foulis, M.D., of a daughter.

Kealy. On April 11th, the wife of John Robert Kealy, Esq., Surgeon, of a son.

Lowry. On April 14th, at West Malling, Kent, the wife of Thomas Harvey Lowry, M.D., of a son.

MARSHALL. On April 20th, at Southampton, the wife of Joseph Marshall, M.D., of a daughter.

MILLER. At St. Leonard's-on-Sea, lately, the wife of — Miller, M.D., of Calcutta, of a daughter.

PEARCE. On April 19th, at Brighton, the wife of *Ravenhill Pearce, M.D., of a son.

PRIDHAM. On April 15th, at Paignton, Devon, the wife of *Charles Pridham, Esq., Surgeon, of a son.

PRIESTLEY. On April 18th, at 31, Somerset Street, Portman Square, the wife of W. O. Priestley, M.D., of a daughter.

WATSON. On April 10th, at Cullen, N.B., the wife of John Watson, Esq., Inspector of Hospitals and Fleets, of a son.

MARRIAGES.

COLE—DAWN. COLE, Rev. Robert E. G., rector of Barnston, Notts, to Frances Elizabeth Christiana, eldest daughter of the late James Dawn, Esq., Surgeon H.M. 2nd Dragoon Guards, at Bath, on April 20th.

RIDER—TENNANT. *RIDER, John, Esq., Surgeon, of Wellington, Salop, to Mary, only daughter of Edward Tennant, Esq., at Liverpool, on April 14th.

VINCENT—RAMSEY. VINCENT, Cyril G., Esq., Surgeon, of Oxford, to Emily Anne, eldest daughter of Thomas Ramsey, Esq., of New York, at Tattenhall, Staffordshire, on April 14.

WHITE—SEARLE. WHITE, James, Esq., to Agnes Frederica Jane, youngest daughter of C. Searle, M.D., of 55, York Terrace, London, at Bombay, on February 9th.

DEATHS.

BRACHET, M., Professor of General Pathology in the Medical School of Lyons, aged about 70, lately. M. Brachet was well known as the author of several medical works.

BURCH, Samuel Jesup, Esq., Resident Medical Officer to the London Hospital, of consumption, aged 41, on April 7th.

HANNATH, John, M.D., at Stamford, aged 60, on April 19th.

HYDE, James Cockburn, Esq., Surgeon R.N., at Battersea, aged 73, on April 18th.

JONES, William, M.D., late King's Dragoon Guards, at Glan Helen, Carnarvon, aged 81, on April 8th.

STEWART, James G., M.D., H.E.I.C.S., at Liberton Manse, near Edinburgh, aged 33, lately.

UNDERHILL. On April 13th, at Tipton, Staffordshire, Walter Frederick, son of *Thomas Underhill, Esq., Surgeon, aged 1 year and 8 months.

APPOINTMENTS.

ARNOTT, James Moncrieff, Esq., F.R.S., appointed Surgeon in Ordinary to His Royal Highness the Prince Consort, in the room of the late B. Travers, Esq.

PASS LISTS.

ROYAL COLLEGE OF SURGEONS. MEMBERS admitted at the meeting of the Court of Examiners, on Friday, April 16th, 1858:—

CALEY, James William, Market Rasen, Lincolnshire
COLLYER, James, Playden, Sussex
COUCH, William Oakley, Theberton Street, Islington
HARRIS, George Harman, Army
HINDLE, George, Over Darwen, Lancashire
HOLMES, William, Stoke Newington
MALONE, John George, Queenstown, Ireland
ROSS, Frederick Dumaresq, Tunbridge Wells
SMITH, Thomas Parker, Croydon
TAYLOR, Charles, Worcester

Monday, April 19th:—

DEARDEN, John, Accrington, Lancashire
EATON, James, Grantham, Lincolnshire
GARNER, John, Birmingham
GRACE, Henry, Kingswood Hill, Bristol
HAYWARD, Henry Howard, Queen Anne Street, Cavendish Square
MOULD, George William, Sudbury
SADLER, Henry George, Wandsworth
STOKOE, Paul Henry, Peckham Rye
TURBER, George Henry, Torriano Avenue, Camden Road Villas
VAUDREY, John Cosham, St. Agnes, Cornwall
WEAVER, Frederick Poynton, Chester
WILLEY, Josiah, Bristol

APOTHECARIES' HALL. Members admitted on Thursday, April 15th, 1858:—

SMITH, Thomas Parker, Croydon, Surrey
STOKOE, Paul Henry
WILLIAMS, Charles, Gloucester

HEALTH OF LONDON:—WEEK ENDING APRIL 17TH, 1858.

[From the Registrar-General's Report.]

THE deaths in London registered in the week ending Saturday, April 17th, were 1207, being nearly the same as those of the previous week. In the ten years 1848-57, the average number of deaths in the weeks corresponding with last week was 1102; but as the deaths now returned occurred in an increased population, they should be compared with the average, after the latter is raised in proportion to the increase, a correction which will make it 1212. The number actually returned, therefore, agrees almost exactly with that obtained by calculation. Whooping-cough and measles still maintain a high mortality, the former having numbered 77 deaths in the week, the latter 55. Two widows died at the age of 96 years—one at Walham Green, another in Islington Workhouse.

Last week the births of 1009 boys and 956 girls, in all 1965 children, were registered in London. In the ten corresponding weeks of the years 1848-57, the average number was 1583.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·821 in. The highest barometrical reading occurred on Wednesday, and was 30·04 in. The mean temperature of the week was 46·7°, which is 1·2° above the average of the same week in 43 years (as determined by Mr. Glaisher). On the first four days the mean daily temperature was below the average; on the two following days it was from 10° to 14° above it. On Sunday, the 11th, the thermometer fell to 27·9°, the lowest point in the week; on Friday it rose to 76° (the highest point); the entire range was therefore 48·1°. The mean daily range was 20·1°; the range of Sunday was 28·3°, that of the following day only 9·3°. The difference between the mean dew-point temperature and air temperature was 8·7°. The mean temperature of the water of the Thames was 45·5°. The mean degree of humidity was 72. The wind was generally north-east on the first three days; it then turned to south-east and south-west; and on Saturday was again in the north-east. A thunder-storm occurred on the evening of Friday, accompanied with rain, which fell to the depth of 0·15 in. in ten minutes.

MEDICAL REFORM: DEPUTATION TO THE SECRETARY OF STATE.

A DEPUTATION from the Medical Corporations of England, Scotland, and Ireland had an interview with Mr. Secretary Walpole, on Saturday, April 17th, at the Home Office. The deputation consisted of Dr. Mayo, president; Dr. Hawkins, registrar; and Dr. Burrows, from the College of Physicians, London: Mr. Stanley, president; and Mr. Lawrence, from the College of Surgeons of England: Mr. Simoens, master; Mr. Tegart, chairman of the Court of Examiners, from the Society of Apothecaries: Dr. Alex. Wood, from the College of Physicians of Edinburgh; Dr. Omond, president of the College of Surgeons of Edinburgh: Dr. Watson, president of the Faculty of Physicians and Surgeons of Glasgow: Dr. Neligan, censor of the King and Queen's College of Physicians in Ireland: Dr. Williams, Member of Council of the College of Surgeons in Ireland. The object of the deputation was to urge upon the government the desirability of taking up Mr. Headlam's Medical Bill and making it a government measure. The deputation expressed their strong disapproval of the Medical Bill brought in by Mr. Cowper, which would throw the entire power into the hands of the council to be appointed under the Bill, in respect of the medical profession, and would bring the profession down to a low level; whereas the Bill introduced by Mr. Headlam would, by raising the standard of instruction and information, exalt the profession to the position it ought to occupy. Mr. Walpole said that, from what he knew of these Medical Bills, he was afraid that if the government took up Mr. Headlam's measure, their doing so would only tend to raise up opposition to it rather than advance it. He could not, therefore, give any pledge on this subject. All he could say was, that he would take care to consider all the suggestions that had been made to him that day, and adopt such a course hereafter as he might deem desirable on the subject.

PUBLIC VACCINATION.

The following petition has been presented by the President and Council of the Epidemiological Society of London.

To the Honourable the House of Commons in Parliament assembled,

The humble petition of the President and Council of the Epidemiological Society of London, sheweth—

That your petitioners represent a society, founded in 1850, for the Investigation of Epidemic Diseases, with a view to their mitigation or prevention.

That one of the subjects which has engaged the most earnest attention of your petitioners, has been the great annual mortality occurring in the United Kingdom from small-pox: a mortality which your petitioners believe might be almost, if not entirely, prevented; vaccination, if performed with the requisite care and precaution, being a safe and almost certain prophylactic against small-pox in its fatal form.

That your petitioners, therefore, attribute the mortality to which they now call your attention, first and chiefly to the neglect of vaccination; and secondly, to its inefficient performance. And they submit that ample proof of this has been laid before your Honourable House—first, in a report presented by themselves in 1853; and subsequently in papers collected by the Medical Officer of the General Board of Health.

That your petitioners, having investigated the Laws regulating Public Vaccination in these kingdoms, and the system of administration pursued, find that, while Scotland is destitute of any provision whatever for this purpose, the arrangements in England and Wales and in Ireland are most ineffective, neither providing the constant medical supervision which is indispensable for the proper diffusion of the blessings of vaccination and the avoidance or suppression of outbreaks of small-pox, nor giving the needful security for the efficiency of the vaccination supplied. These deficiencies your petitioners have considered in detail in a memorial printed by your Honourable House in 1855.

That the defects complained of, so far as they regard the system of administration pursued, were in no way removed by a Bill, passed in 1853, for extending and making compulsory, in England and Wales, the practice of vaccination: and that on this account, not only has this Bill (which has nevertheless had a striking and most beneficial effect on the mortality from small-pox) been much less operative than it otherwise would have been, and in some places indeed almost entirely inoperative; but also the benefit it did confer is on the decline—the infantile public vaccination having diminished from 65 per cent. of the births, which was the ratio in 1854, to 56 per cent. in 1855, and to 54 per cent. in 1856.

That it was, therefore, with the greatest satisfaction that your petitioners observed that a Bill was introduced to your Honourable House by Her Majesty's Government early in the Session of 1856, which would in their humble opinion have secured, or laid the foundation for securing, a good system of public vaccination in England and Wales: which Bill, however, having passed a second reading, has, to the great regret of your petitioners, not been further proceeded with.

That from the time this Bill was first introduced to your Honourable House to the present time, there have perished in England and Wales alone from small-pox between 4000 and 5000* persons at the least, chiefly young children: that nearly every one of these lives might have been saved by efficient vaccination: and that, while your petitioners are far from supposing that any change in administrative system would *at once* have reached all these cases, they can yet most confidently affirm that it would have reached a very large number of them, and that a great saving of life and human suffering might thus, in these two years only, have been effected.

That this loss of life which might be avoided, is still going on from day to day, and that on account of the decrease in the number of public vaccinations already pointed out, it will in all probability become more considerable: for which reasons your petitioners deprecate further delay, and earnestly pray your Honourable House to take *immediately* into your consideration this question of public vaccination. Your petitioners are fully aware of the numerous questions to which your attention is called each Session, and of the great importance of many of them; but they humbly and respectfully submit that no questions can be more important, and that none can less admit of postponement, than those which would effect a saving of human life.

And your petitioners, as in duty bound, etc.

(Signed) B. G. Babington, M.D.,
President of the Epidemiological Society.

* This petition was drawn up early in January; but its presentation has been delayed by various causes till the present time. The number of deaths now must be considerably over 5000.

COMMISSION OF LUNACY.

An inquiry, occupying the 12th, 13th, and 14th inst., has taken place at the Gray's Inn Coffee House, Holborn, into the mental soundness of the Rev. J. Leach, a clergyman of the Church of England. Mr. Montague Chambers, Q.C., appeared for the alleged lunatic, and Mr. Bovill, Q.C., was engaged in support of the commission. The facts deposed to were briefly as follows:—

Mr. Leach in 1841 had an undoubted attack of insanity, requiring to be placed under restraint; in 1852 he had another severe accession; in 1853 he had a third attack. In all these attacks Mr. Leach's mind appears to have been the subject of religious delusions. In 1853, Dr. Forbes Winslow was first called in; and Mr. Leach recovered in a few weeks from his attacks of insanity without being removed from home. Some time after this, and subsequently to the death of his wife, Mr. Leach removed to a furnished house near Hammersmith, where he continued to reside for some years, his mother, and occasionally his sister, living with him, and managing his domestic affairs. In the early part of 1857 his relations began again to be apprehensive that another attack of insanity was close at hand. It was again deemed prudent to obtain medical advice. Dr. Winslow a second time was requested to see Mr. Leach, and reported to the family that he was undoubtedly insane, advising, however, that he should not at that time be placed under restraint. He considered it, however, important that Mr. Leach's conduct should be carefully watched by the family, and if they were satisfied that he was going to act under the influence of his delusions, then closer supervision would be necessary. Such an event occurred in the course of a few weeks, and Mr. Leach, on a medical certificate, was placed under the care of Dr. Winslow, at Hammersmith. There Mr. Leach remained for six months, when he was deemed sufficiently improved to justify his being placed in a private family, but still under certificate and legal control. Mr. Leach having, as it was alleged, whilst in a state of insanity, entered into an engagement to marry one of his servants, it was considered necessary by his family, with the view to his protection, to petition the Lord Chancellor that a Commission *de Lunatico Inquirendo* should be issued to try his sanity. The prayer of the petition was complied with, and an inquiry took place at the Holland Arms, Kensington, some months ago, before Mr. Commissioner Barlow. At that inquiry six medical gentlemen gave evidence of Mr. Leach's insanity; one physician appeared on behalf of the alleged lunatic. Mr. Barlow, availing himself of a clause in the Lunacy Act, declined pronouncing judgment, and ordered the question to be submitted to a jury.

The following facts were deposed to by Dr. Forbes Winslow, as evidence of Mr. Leach's insanity—(Drs. Southey, Sutherland, and Wood; Messrs. Sidden, Bartlett, Halford, and Dewsnap gave evidence of a similar character.)

Dr. Winslow considered Mr. Leach to be in a state of insanity, associated with religious hallucinations. Mr. Leach represented that he had a mental vision of our Saviour on the cross whilst in the pulpit, and that He had led to his miraculous conversion; that he was under a delusion that he had a direct command from the Deity to wear a long beard, and that he should be committing an abomination against the Almighty if he were to cut it off; that he fancied he was the subject of an inward voice which directed him in everything he did; that he was under a delusion that he had prevented the abolition of capital punishment for murder by writing to the *Times*, and conversing with strangers in omnibuses; that he considered that the millennium had commenced, and that our Saviour had been seen on earth by an old woman in the country; that all social ranks and distinctions were abolished, and that servants should become our associates, if not our equals; that under this religious delusion Mr. Leach had for some time been in the habit of taking his meals with his two female servants, reading the Bible and praying with them, and immediately after prayer playing whist with them until three o'clock in the morning, reading, during the deals of cards, hymns to his servants. For so doing Mr. Leach represented that he had

scriptural authority. Mr. Leach was also in the habit of standing for several hours in an attitude of devotion, never uttering any vocal sound; and occasionally he would prostrate himself with his face to the ground, praying, as he alleged, for the restoration of miraculous gifts to the Church, believing that in answer to prayer he would have imparted to him the power of restoring sight to the blind, healing the sick, and raising the dead. He also, according to his own admission, as well as the evidence of others, was in the habit, not only of playing whist with his two servants, but of kissing them both, and having them to sit upon his knee; and this he did as a part of his religious course of life. He had also in his possession six pistols, and was in the habit of carrying powder in his waistcoat pocket. It was in consequence of his conduct with his servants, his having pistols in his possession, and his engaging himself to one of the maids, and of other singular acts of conduct under clearly manifested religious delusions, that led Dr. Winslow to advise Mr. Leach being placed under temporary restraint. Drs. Southey, Sutherland, and Wood, deposed to the same facts.

Mr. Leach was in the room during the whole of the proceedings, taking notes of the evidence, and conferring with his counsel.

In behalf of the alleged lunatic, Drs. Conolly and George Johnson gave testimony. Dr. Conolly was of opinion that Mr. Leach was of perfectly sound mind, and quite competent to manage himself and his affairs, and that his alleged delusions were nothing more than "singular", "odd", "extreme", and "eccentric" religious opinions.

Mr. Montague Chambers made an able speech in favour of Mr. Leach, and Mr. Bovill replied. After a few remarks from the Commissioner, the jury retired. They were nearly three hours absent from the court; they then declared that there was no chance of their agreeing to a verdict. It appeared that, out of the fifteen jurymen, nine were for the lunacy and six for the sanity; and, as it was necessary to have an unanimous verdict one way or the other, the Commissioner (as he saw no probability of obtaining a verdict) discharged the jury.

Mr. Leach has a reversionary interest in £20,000 on the death of his mother, an aged lady, which he has proposed to dispose of; and it was with the view of protecting this gentleman's property, as well as his person, by preserving him from the undue influence exercised over him by his domestic servants whilst in a state of mental derangement and incapacity, that these proceedings were instituted by his family.

ROYAL MEDICAL SOCIETY OF EDINBURGH.

On Thursday evening, March 18th, a *conversazione* was held at the Royal Medical Society of Edinburgh, when Dr. W. P. Alison, Emeritus Professor of the Practice of Physic, read a paper on the Science of Life. The President of the Society, Dr. Pow, occupied the Chair. The company present was very numerous.

Dr. Alison commenced by reminding the members of the Royal Medical Society of the observation of the late Dr. Gregory, that the hall of their Society, and the free discussion there carried on a century ago, had been the seat and the instrument of the overthrow of the humoral pathology, previously taught by Boerhaave and all the great schools of medicine in Europe. He quoted also the words of Dr. Gregory, strongly condemning the manner in which the science of medicine had been cultivated and connected with its practice up to that time, but at the same time stating some of the chief causes of this imperfection, and expressing his confident expectation that, by the free and faithful application of those principles of inductive science, these difficulties would be gradually overcome, and "medicine make great and happy progress." He proposed to illustrate this observation by a review of the changes gradually effected in medical science, during the time when he had himself occupied the chairs of the Institutes and Practice of Medicine in this University, as sufficient to characterise the generation now passing away as one of interest and mark in the history of mankind; but was unable for the present to go further than the exposition of those first principles which were applicable to all sciences. He quoted the words of one of the first living philosophers of France, Victor Cousin, that the correct views of psychology, and the high rank assigned to that study in the Universities of Scotland, were what chiefly distinguished them "in the presence of the European public"; and, further, the confident expression of opinion by Humboldt, that "the reconciliation and cordial union of science with religion is the great problem of this age." With a view to this, he thought it important to observe, that he did not recommend in general that the two studies should be prosecuted in combination, by which it seemed to him to be much easier to defend religious expressions than to sanctify the everyday details of science. This must be left to the habits and tastes of individuals; but of this he was confident, that when "we have done all that we have to do" in the study and practical application of the sciences connected with medicine, we shall often find the most pleasing and profitable reflections on what we have done to carry us back, with constantly increasing conviction, to those sublime feelings of adoration and gratitude which we share with the great body of mankind towards Him, of whom alone it could be said, that He called on things that "were not and they came." He was at pains to point out that the argument for the existence and attributes of the Deity, drawn from the science of life, and always thought the main foundation of natural theology is really, as Reid anticipated, "gaining strength with the progress of science, and more conclusive now than it was some centuries ago;" but that it is the very same argument as has been held by all the greatest philosophers of ancient and modern times, and that when the expression of it is confined to the simplicity which the principle of common sense or of intuitive evidence demands, it is of such cogency that we are entitled to hold the debate on it to be closed; whereby, as he believes, these studies will lose much of their formidable character, and gain much estimation in the eye of the world. He expressed his belief that the objections stated within these few years to the usual mode of stating that argument, by Mr. Baden Powell at Oxford, by Sir J. Herschel at Cambridge, by Principal Tulloch, and by Drs. M'Cosh and Dickie, might, as he thought, be distinctly and precisely traced to misapprehension of words not affecting the sense; and quoted with great satisfaction the words of Dr. Whewell of Cambridge, in his *Philosophy of the Inductive Sciences*, to the same effect. The illustrations which he had prepared of the advance of the sciences of physiology and natural history in particular, consequent on the use of the microscope, and of organic chemistry, and the foundations thus laid of a high pathology, he was obliged to postpone. In conclusion, he said that he should have wished to address the Royal Medical Society on several of those subjects, but thought he had said more than enough to show that the profession of medicine, at this period of its existence among mankind, is one of strenuous exertion, but of high promise, and to illustrate the expression of Humboldt which he had quoted before. He could not promise that the exercise of this profession would bring them wealth, or influence, or worldly honours; but he thought he could assure them that, if they devoted themselves with earnestness and sincerity to the investigation of truth and the practice of their profession, they will find that, even in this world, there are better things than any of those. Any man who had laboured, as he had, forty years and upwards as a practitioner of medicine among all ranks of society, must know that the diffusion of happiness takes place on a very different principle from that of worldly pomp or circumstances.

> Pallida mors æquo pulsat pede pauperum tabernas,
> Regumque turres.

But, in so attaching themselves to their profession, they might consider that they had nailed their colours to the mast, and will never feel reason to repine at the dispensations of Providence.

At the conclusion of the lecture, Professor Blackie moved, and Professor George Wilson seconded, a vote of thanks to Dr. Alison, which was carried by acclamation. (*Edinburgh Medical Journal.*)

TO CORRESPONDENTS.

Members should remember that corrections for the current week's Journal should not arrive later than Wednesday.

Anonymous Correspondents should always enclose their names to the Editor; not for publication, but in token of good faith. No attention can be paid to communications not thus authenticated.

Erratum. In lasts week's number, page 304, column 2, line 12 from bottom, for "valvular," read "valvula."

Communications have been received from:—Mr. Thomas Smith; Dr. Ranking; Sir Charles Hastings; Mr. Humphreys; Mr. T. F. Edwards; Mr. F. H. Hartshorne; Mr. H. W. T. Ellis; Dr. R. U. West; Mr. Crosby Leonard; Dr. J. G. Swayne; Mr. T. Underhill; Mr. J. S. Gamgee; Dr. Burke Ryan; Dr. E. C. Seaton; Dr. Routh; Mr. T. Holmes; Mr. W. Martin; Dr. C. Handfield Jones; Mr. J. J. Pope; Mr. T. M. Stone; Mr. W. Davidson; Medicus; Dr. J. B. Nevins; Dr. R. Pearce; Mr. C. Pridham; Mr. J. Windsor; Dr. Tom Guy; and Mr. Haynes Walton.